Inter-Tel CS-5200/5400 Communication Server

Administrator Guide

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CS-5200/5400
COMMUNICATION SERVER
ADMINISTRATOR GUIDE

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NOTICE

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The contents of this guide, which reflect current Inter-Tel standards, are subject to revision or change without notice. Some features or applications mentioned may require a future release and are not available in the initial release. Future product features and applications are subject to availability and cost. Some features or applications may require additional hardware and/or specific software. Software packages released after the publication of this guide will be documented in addenda to the guide or succeeding issues of the guide.

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Voice Mail Administrator Features

If your voice mail system has Automatic Speech Recognition (ASR) capability and it is enabled for the administrator mailbox, you can complete voice mail tasks by issuing spoken commands *or* by pressing dialpad digits.

Accessing the Voice Mail Administrator's Mailbox

— Call the voice mail access number.

— Say "Login" or press ✳.

— Say or enter the administrator mailbox number. Then enter the password, and press #.

— Say "Nine" or press 9 to access the voice mail administrator menu.

To Record a Broadcast Message:

— Access the voice mail administrator's mailbox and menu (see above).

— Say "Broadcast Message" or press 1 to send a broadcast message.

— Record the message.

— When the message is recorded, hang up *or* press # for more options.

To Perform Mailbox Maintenance:

— Access the voice mail administrator's mailbox and menu (see above).

— Say "Mailbox Maintenance" or press 2 to select the Mailbox/Group List Maintenance option.

— Say or enter the mailbox, extension ID, or group list number to be accessed and follow the prompts.

To Import a Fax Document:

— Using a fax machine, obtain dial tone and access the voice mail administrator's mailbox and menu (see above).

— Say "Import Fax" or press 4 to select the Import Fax option.

— Say or enter the fax document number.

If the document number does not already exist, say "Yes" or press # if the number is correct *or* say "Re-enter" or press 3 and re-renter the number.

If the document number already exists, say "Yes" or press # to replace the document *or* say "Re-enter" or press 3 to enter another number.

If you did not enter a valid number, enter a new number.

— When prompted, press **START** on the fax machine.

— When the fax transmission is complete, say "Continue" or press # to continue importing documents, or press ✳ to exit.

Quick Reference Guide To System, Voice Mail, and Diagnostics Administrator Features

These are the **basic** instructions for the most frequently used system administrator and voice mail administrator features. For detailed information on these features, refer to the *Administrator Guide*.

System Administrator Features

To Place the System in Night or Day Mode:

— While on-hook, enter 9 8 6 0.

To Place a Single Node in Day or Night Mode:

— While on-hook, enter 9 8 6 1 (Enable Network **Night** Mode) *OR* enter 9 8 6 2 (Enable Network **Day** Mode). Then enter the desired node number.

To Set System or Network Date and Time:

— While on-hook, enter 9 8 0 0 (**System** Date/Time), or enter 9 8 1 0 (**Network** Date/Time).

— Use the dialpad buttons to enter the month, day, and year. For example, press 010305 for January 3, 2005. Or, press # to skip ahead without changing the date.

— Use the dialpad buttons to enter the time in hours and minutes. For example, enter 0900 for 9:00. Or press # twice to exit without changing the time.

— *If the system is set for 12-hour display format,* press 1 for AM or press 2 for PM.

To Synchronize Network Time:

While on-hook, enter 9 8 1 1.

To Respond to an Alarm Message:

— When a minor alarm indication appears, write down the alarm information.

— While on-hook, clear the alarm by entering 9 8 5 0 (Clear System Alarm) *OR* entering 9 8 5 1 (Clear Network Alarm).

— Look up the alarm in the *Administrator Guide* and take the appropriate action.

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To Program System Speed-Dial Numbers:

— While on-hook, enter **9** **8** **0** **1**.

— Enter the speed dial location code (000-999) or (0000-4999).

— **To change or program the name:** Enter the desired name for the speed-dial number using one of the following methods:

In numeric mode, the dialpad buttons are used to enter numbers 0-9, the **#** button is used for entering a hyphen, and the ***** button is used for entering a colon.

In alphanumeric mode, dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. When adjoining characters are located under the same button, press **FWD** to advance to the next character. Refer to the following chart to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.)

To erase the current name and leave it blank: Press **MUTE** repeatedly until the name is erased. Then press **#**.

To leave the name the same: Press **#**.

— Enter the number (up to 48 digits) to be stored.

— Press **#**.

BUTTON	NUMBER OF TIMES BUTTON IS PRESSED										
	1	2	3	4	5	6	7	8	9	10	11
	ENGLISH CHARACTERS					JAPANESE CHARACTERS*					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /**	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #**	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the multilingual feature is enabled and Japanese is installed as the secondary language.

**The character available depends on the software version.

Default Administrator Feature Codes

CODE (US/EU)	FEATURE NAME	CODE (US/EU)	FEATURE NAME
9823	Automatic Diagnostics Delivery On/Off	9866	Modem Enable
9851	Clear Network Alarm	9869	Modem Reset
9850	Clear System Alarm	9860	Night Ring On/Off
9982/9182	Compression On/Off	9825	Periodic Diagnostics On/Off
9981/9181	Compression Statistics	9932/9132	Program Database
9900/9100	Diagnostics On/Off	9801	Program System Speed Dial
9862	Enable Network Day	9810	Set Network Date/Time
9861	Enable Network Night	9800	Set Time/Date
9867	Modem Disable	9811	Synchronize Network Time

System Diagnostics Features

System diagnostics mode allows a system administrator to perform diagnostics functions such as freezing/unfreezing the database, printing message logs, and seizing a device for troubleshooting purposes. Use diagnostics mode when the system is idle to avoid affecting system performance.

To Enable/Disable System Diagnostics Mode:

While on-hook, enter the Diagnostics Mode feature code (9900 or 9100) to enable/disable diagnostics mode. The display shows DIAGNOSTICS ON/OFF. Then enter one of the following diagnostics feature codes (9xxx).

Default Diagnostics Feature Codes

CODE (US/EU)	FEATURE NAME	CODE (US/EU	FEATURE NAME
9926/9126	Diagnostic - ASAI Snoop Off	9963/9163	Diagnostic - Network Groups
9927/9127	Diagnostic - ASAI Snoop On	9972/9172	Diagnostic - Print Auxdata
9922/9122	Diagnostic - Dump Extension	9975/9175	Diagnostic - Print Message Log
9936/9136	Diagnostic - Dump Node Information	9976/9176	Diagnostic - Print Network Log
9933/9133	Diagnostic - Dump System Diagnostics	9978/9178	Diagnostic - Query Node Traffic
9943/9143	Diagnostic - Heap Dump	9928/9128	Diagnostic - Show Version
9947/9147	Diagnostic - Heap Statistics	9987/9187	Diagnostic - SIP View
9948/9148	Diagnostic - ISDN View	9910-9912/ 9110-9112	Diagnostic - Spare 1-3
9962/9162	Diagnostic - Major Reset	9974/9174	Diagnostic - System History
9945/9145	Diagnostic - Mark as Leaks	9983/9183	Diagnostic - View Displays
9946/9146	Diagnostic - Mark as Quiescent	9973/9173	Seize Device
9964/9164	Diagnostic - Minor Reset	9993/9133	System History Freeze
9939/9139	Diagnostic: Network Freeze Zone – System Histories	9998/9198	System History Unfreeze
9989/9189	Diagnostic - Network Unfreeze Zone – System Histories		

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FCC Regulations

IMPORTANT

1. This equipment complies with Part 68 of Federal Communications Commission (FCC) rules. On the side of the equipment chassis is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. Customers connecting this equipment to the telephone network shall, before such connection is made, give notice to the telephone company of the particular line(s) to which such connection is to be made, and shall provide the telephone company with the following information:

   - Complies with Part 68 of the FCC Rules
   - FCC registration number:
   - USOC numbers of required interface jacks (see chart on next page)
   - Service order code (SOC), as applicable (see chart on next page)
   - Facility interface code (FIC) (see chart on next page)
   - REN, as applicable (see chart on next page)

   NOTE The REN is used to determine the number of devices that can be connected to a single telephone line so that all the devices will ring or otherwise respond to incoming calls. Each device that can be connected to a telephone line has a REN value. When the sum of device RENs on a line exceeds the maximum REN value the line can support, usually 5.0, some or all of the devices may not ring or respond appropriately. To identify the REN for lines in a telephone service area, contact the telephone company.

   The telephone company should also be given notice upon final disconnection of this equipment from the particular line(s).

   It is also the responsibility of the customer to provide the telephone company with registration numbers of any other devices which are configured for connection to the telephone network.

2. This equipment cannot be used on public coin service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact the state public utility commission, public service commission, or corporation commission for information.)

3. If this equipment causes harm to the telephone network, the telephone company will notify the customer in advance that service may be temporarily discontinued. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, the customer will be advised of the right to file a complaint with the FCC, if necessary.

4. The telephone company may make changes in its facilities, equipment, operations, or procedures which may affect the operation of this equipment. If so, the customer shall be given advance notice so that any necessary modifications can be made in order to maintain uninterrupted service.

5. If trouble is experienced with this equipment, contact a local authorized factory service representative for repairs and/or warranty information. The customer, users, and unauthorized technicians should not repair, make adjustments to, or attempt to service this equipment in any way.

6. In the event of trouble with the telephone line(s), this equipment must be disconnected from the telephone line(s). If trouble ceases, the equipment must be repaired by an authorized factory service representative. If the trouble continues to occur with the equipment disconnected, the telephone company should be notified that they have a problem. If this is the case, repairs or adjustments made by the telephone company will be made at their expense.

7. Allowing this equipment to be operated in such a manner as to not provide proper answer supervision signaling is in violation of Part 68 of FCC rules. This equipment returns answer supervision signals to the public telephone network when: answered by the called station, answered by the attendant, routed to a recorded announcement that can be administered by the equipment user, and/or routed to a dial prompt. This equipment also returns answer supervision on all DID calls forwarded back to the public telephone network. Permissible exceptions are: a call is unanswered, busy tone is received, or reorder tone is received.

8. This equipment is capable of providing users access to interstate providers of operator services through the use of equal access codes. Failure to provide equal access capabilities is a violation of the Telephone Operator Consumer Services Improvement Act of 1990 and Part 68 of the FCC Rules.

TYPE OF PORT-INTERFACE	FACILITY INTERFACE CODE (FIC)	RINGER EQUIVALENCE NO. (REN)	SERVICE ORDER CODE (SOC)	USOC JACK CONNECTOR
2-Wire Loop	02LS2	0.6B	–	
D4 Superframe/AMI	04DU9-BN	–	6.0Y	RJ-48C
D4 Superframe with B8ZS	04DU9-DN	–	6.0Y	RJ-48C
Extended Super frame (ESF)	04DU9-1KN	–	6.0Y	RJ-48C
ESF with B8ZS	04DU9-1SN	–	6.0Y	RJ-48C
Primary Rate ISDN	04DU9-1SN	–	6.0Y	RJ-48C

NOTICE

The telephone instruments specifically designed for this system have hearing aid-compatible handsets that are in compliance with section 68.316 of the FCC Rules.

The IP SLA complies with UL60950/CSA60950 and EN 60950 standards and complies with EN 55022 and CFR 47 part 15 of the FCC Rules.

This equipment generates and uses radio frequency (RF) energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps are necessary to correct the interference. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment chassis with respect to the receiver.
- Check that the equipment chassis and receiver are not on the same circuit; the equipment must be powered from an isolated, dedicated AC outlet.
- If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio-TV Interference Problems."

  This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00398-5.

  If radio frequency interference (RFI) problems persist, contact Inter-Tel Customer Support.

  The is now product safety certified by Canadian Standards Association (CSA) for use in both the United States and Canada.

Safety Regulations

IMPORTANT SAFETY INSTRUCTIONS

NOTICE

The "C US" indicator adjacent to the Canadian Standards Association (CSA) mark on the product label signifies that the system has been evaluated to the applicable ANSI/UL and CSA Standards for use in both the United States and Canada. The CSA is a Nationally Recognized Testing Laboratory (NRTL). NRTL is a designation granted by the U.S. Occupational Health and Safety Administration (OSHA) to laboratories which have been accredited to certify products to U.S. Standards.

Before installation, check the local electrical codes for important information concerning the installation of telephone and electronic equipment.

The following safety information is reprinted from UL 1459. When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons.

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water (for example, in a wet basement).
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the chassis and the back or bottom are provided for ventilation, to protect it from overheating; these openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated only from the type of power source indicated in the manual. If you are not sure of the type of power source to your building, consult your dealer or local power company.
8. This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.
10. Do not use an extension cord with this product's AC power cord. The AC outlet for this product should not be used for any other electrical equipment.

11. Never push objects of any kind into this product through chassis slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the product is subsequently used.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    - When the power supply cord or plug is damaged or frayed.
    - If liquid has been spilled into the product.
    - If the product has been exposed to rain or water.
    - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    - If the product has been dropped or the chassis has been damaged.
    - If the product exhibits a distinct change in performance.

14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

15. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

NOTICE

An exclamation point within a triangle, such as the one silk-screened on the front of the equipment cabinet, or chassis, is intended to alert the user to a hazard that may result in bodily harm. To promote safe operation, maintenance, and servicing of equipment, pay attention to the hazards identified in the literature accompanying the product.

Be sure to read and follow all of the instructions included in this manual and other applicable literature.

NOTICE

The equipment contains no operator access areas and is certified only for installation in a restricted access location, by trained personnel only. (UL 60950-1)

Network Security Statement

Although no telecommunications system or data network is entirely secure, as long as appropriate security measures are put in place and properly maintained by both the customer and the installing company, this architecture and its associated server-based applications are substantially secure against unauthorized access to the customer's data network via the telecommunications system. Appropriate security measures include, but are not limited to, the proper implementation of user/administrative accounts, passwords, firewalls, Network Address Translation (NAT), access control lists, virus protection, security updates, etc., and the proper maintenance of access points/programs and their respective accounts/passwords.

Overview

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Introduction

This Administrator Guide provides information an administrator needs to know about system hardware and features, and it gives detailed instructions on their use. For simplified instructions on using endpoint and voice mail system features, refer to the appropriate user guide provided with each endpoint.

Intended Audience

This manual provides information and instruction for carrying out System Administrator and Voice Mail Administrator duties.

As a System Administrator, you can provide the following services:

- Place the local telephone system or other systems in the network in night or day mode
- Set the date and time of the local system
- Set the network date and time and re-synchronize clocks in the network
- Make database changes (see page 13 for a list of programming areas)
- Program System Speed Dial numbers on the local system
- Receive and clear displayed system and network alarms
- Use diagnostic mode features to:
  - Freeze and unfreeze database history on the local system or other systems in the network.
  - Print error logs.
  - Seize specific devices for troubleshooting purposes.
  - Report audio problems to your installer/technician.

Any Inter-Tel endpoint can be designated as a System Administrator endpoint through Database Programming. However, Inter-Tel recommends using a Model 8660 Six-Line Display IP endpoint for this purpose to facilitate programming and to manage alarm messages. Administrator features are described in detail, beginning on page 11.

Voice Mail Administrator Duties

As the Voice Mail Administrator, you can use special features that are not provided to other voice mail users. The mailbox designated as the administrator mailbox has all of the standard subscriber features, which can be found in the appropriate endpoint user guide, plus the ability to do the following tasks:

- Record a broadcast message
- Perform mailbox and group list maintenance
- Create and select custom Audiotex recordings (voice mail company greetings, auto attendant recordings, call routing announcements, and hunt group overflow and announcement endpoint recordings)
- Import fax documents
- Customize voice mail prompts

Voice mail administrator features are described in detail on page 43.

Multicultural References

This document supports the usability requirements of administrators in the United States of America (US) and in the Inter-Tel Europe market, which includes the United Kingdom (UK). As appropriate throughout the document, simultaneous references occur where multicultural specifications, standards, or terminology apply. For example, the US telecom industry refers to central office (CO) trunks, but in the UK, these connections are called local exchange trunks. Using this example, this document would refer to CO trunks (local exchange trunks in Europe).

Communication Solution

The Inter-Tel® CS-5200/CS-5400 Communication Server is a converged communications platform that provides an Internet Protocol (IP) solution for small- and medium-sized business environments.

The Inter-Tel CS-5200 and the Inter-Tel CS-5400 systems are sold separately as kits that include five IP endpoint licenses each. Additional IP endpoint licenses are required before more than 5 IP endpoints will operate on a system.

Included in the platform chassis, and availble to both systems, are 2 built-in single line endpoint circuits, 2 built-in loop start trunk circuits, and circuitry to support up to 90 trunks across T1/E1/PRI spans.

For smaller user environments, the Inter-Tel CS-5200 default configuration includes 3 IP networking resources in addition to the platform chassis circuitry. If the 3 IP networking resources are used, sufficient IP resources are available for installation of 25 IP endpoints. However, with required interface hardware and licensing, the Inter-Tel CS-5200 supports a mix of up to 28 IP endpoints, IP private networking trunks, and/or IP gateway trunks.

Adding a Processor Expansion Card (PEC-1) and applicable licensing to the base platform creates the Inter-Tel CS-5400. The default configuration of the larger-capacity system includes 6 IP networking resources in addition to the 5 IP endpoint licenses and platform chassis circuitry. If the 6 IP networking resources are used, sufficient IP resources are available for installation of 110 IP endpoints. However, with required interface hardware and licensing, the Inter-Tel CS-5400 supports a mix of up to 116 IP endpoints, IP network trunks, and/or IP gateway trunks.

The Inter-Tel CS-5200/5400 platform is the foundation of the Inter-Tel 5000 Network Communications Solutions family of products. Built on 32-bit architecture and packaged in a 1U chassis, the Inter-Tel CS-5200/5400 provides a robust IP communication solution.

Either configuration of the system can operate as a stand-alone IP communication system, or up to 63 systems, or nodes, can be networked together. With appropriate licensing, the Inter-Tel CS-5200/5400 also networks with Inter-Tel Axxess® systems so long as the Axxess systems run v7.0 and later to enable T1 point-to-point (P2P) networking or v8.231 and later to enable IP networking. Also, any involved IP Resources Card (IPRC) on an Inter-Tel Axxess system in the network must run firmware v9.0.0 or later.

System Capacities

The Inter-Tel CS-5200/5400 platform supports:

- **Central Office (CO) Trunks:** Up to six Loop Start trunks can be installed in increments of two.
- **T1/E1/PRI Spans:** Up to three T1, T1/PRI, or E1/PRI spans can be installed on the Inter-Tel CS-5200/5400 platform. A T1 span supports up to 24 trunks; a T1/PRI span supports up to 23 trunks; and, an E1/PRI span supports up to 30 trunks.
- **IP Devices:** The Inter-Tel CS-5200/5400 supports Inter-Tel IP endpoints and IP Single-Line Adapter (IP-SLA) devices. The Internet Protocol Resource Application (IPRA)

supplies IP functionality for the system and communicates to the endpoints and gateways across 10/100Base-T Ethernet. The IPRA supports the Model 8601 Pocket PC SIP softphone, which is described in the following paragraph, but does *not* support Inter-Tel legacy IP SoftPhones.

- **Pocket PC SoftPhone:** Model 8601 is a SIP softphone that runs on selected Pocket PC 2002 (or later) Personal Digital Assistant (PDA) platforms.
- **Multi-protocol endpoints:** A multi-protocol endpoint operates either in Inter-Tel Protocol (ITP) mode or in Session Initiation Protocol (SIP) mode. A SIP server is required for SIP mode operation. Multi-protocol endpoints include Models 8620/8622, 8662, and 8690. Multi-protocol endpoints require software licenses.
- **Wireless endpoints:** Models 8664 and 8665 are wireless endpoints that operate in ITP mode.
- **Single line endpoints:** In addition to the two circuits built-in on the Inter-Tel CS-5200/5400 chassis, single line endpoints can be installed in conjunction with IP Single-Line Adapters on a 1:1 basis.

System Network Capacities

Two or more Inter-Tel Advanced Communications Platforms can be connected to form a network that provides a seamless interface between the systems. To the user, the network appears as one integrated system. With few exceptions, the user can perform all of the functions across the network that can be performed within a single system.

In this guide, all references to a “network” mean two or more connected systems. Each system in a network is called a “node.”

The maximum capacities for networking appear in Table 1.

Table 1. *System Network Capacities*

FEATURE/DEVICES	CAPACITY
System Nodes per network	63
Local devices per node	304*
Off-node devices per node	10,000
Devices per network	40,000

* The maximum number of endpoints and trunks that can be installed is limited by the number of voice channels and/or system memory resources available.

System Administrator Functions

As a System Administrator, you can provide the following services:

- Place the local telephone system or other systems in the network in night or day mode.
- Set the date and time of the local system.
- Set the network date and time and re-synchronize clocks in the network.
- Make database changes (see page 11 for a list of programming areas).
- Program System Speed Dial numbers on the local system.
- Receive and clear displayed system and network alarms.

- Use diagnostic mode features to:
  - — Freeze and unfreeze database history on the local system or other systems in the network.
  - — Print error logs.
  - — Seize specific devices for troubleshooting purposes.
  - — Report audio problems to your installer/technician.

Any Inter-Tel endpoint can be designated as a System Administrator endpoint through Database Programming. However, Inter-Tel recommends using display endpoints to facilitate programming and to manage system alarms. Administrator features are described in detail beginning on page 11.

NOTE Single line endpoints cannot be programmed as Administrator endpoints.

Voice Processing Systems

Inter-Tel CS-5200/5400 Communication Server supports the following voice processing systems:

- **Basic Voice Mail (BVM):** BVM is built-in on the Inter-Tel CS-5200/5400 platform to provide voice mail and messaging services. BVM does not support Fax-On-Demand or Unified Messaging.

  BVM messages are stored on a compact flash memory card formatted by Inter-Tel. The card also stores system applications and the user database.

  The size of the compact flash memory card installed in the system determines the capacity of BVM message storage, which ranges from 30 hours with a 256 MB card to more than 211 hours with a 1 GB card.

  For storage of voice mail messages and greetings, custom prompts, and Record-A-Call messages, each system compact flash card reserves a predetermined amount of memory. The larger the capacity of the compact flash card, the more memory will be available for storage, as shown in Table 2.

  The amount of message storage, which is allocated for each user as a quota of the total storage capacity, is programmable in minutes through DB Studio. A warning flag can be set for each mailbox to alert the user when a specified percentage of the allocated quota has been reached.

  In addition to the standard US English prompts, each set of language prompts reduces by approximately 75 minutes the amount of storage available for allocation. Table 2 shows the amount of message storage available on the three sizes of compact flash memory card before additional sets of prompts are applied. In addition to US English, the system supports UK English, Spanish, and Japanese language prompts.

Table 2. *BVM Storage Capacities on Compact Flash Memory Cards*

Compact Flash Card	Basic Voice Mail Storage Capacity
256 MB with US English prompts	30 hr (1800 min)
512 MB with US English prompts	90 hr (5420 min)
1024 MB with US English prompts	211 hr (12,670 min)

When all of the IP resources available for BVM are busy, the next callers are camped-on to wait for a resource to become available. Upgrading to an expanded, external voice mail system is recommended when an unacceptable number of callers are being camped-on before they can leave a voice message.

BVM can be replaced with an external Voice Processing Unit (VPU) or Enterprise® Messaging (EM) system. The VPU and EM systems can be installed on any or all nodes in the network to allow a caller to leave a message on a local voice processing system for a mailbox located on another voice processing system in the network.

- **Enterprise Messaging:** EM is an optional external system that unifies communication and messaging by providing access to voice mail, fax, and e-mail messages in the user's mailbox. In addition, EM provides automatic speech recognition capabilities and built-in Unified Messaging features. EM runs on the Windows 2000 operating system. For detailed information about EM, see the *Enterprise Messaging Installation Manual* (part no. 780.8006).
- **Voice Processing Unit:** VPU is an optional external system that provides integrated voice processing (voice mail, automated attendant, hunt group announcement and overflow, optional Fax-On Demand, buffered SMDR, Record-A-Call, etc.), with special applications software that can be attached to the telephone system. VPU runs on either the Windows NT or Windows 2000 operating systems.

Voice Processing System Applications

Inter-Tel voice processing systems support several voice processing system applications. Depending on your site's voice processing system, equipment, and licensing, you may have access to one or more of the following voice processing system features:

- **Automated Attendant:** Automated Attendant is a programmable feature that provides automated call answering services. Calls can transfer, forward, or directly ring in to Automated Attendant. When Automated Attendant answers a call, it plays a recording that gives dialing instructions. After hearing the recording, or at any time while it is playing, the caller may dial an extension or mailbox number. For information on the Automated Attendant feature, see page 221.
- **Automated Attendant Recall Destination:** If a call that is transferred by Automated Attendant is not answered before the Transfer Voice Processor timer expires, the call recalls the Automated Attendant Recall Destination. The Recall Destination announces that the endpoint is unavailable and allows the caller to leave a message if the endpoint has an associated mailbox, or to dial another extension. For information on the Automated Attendant Recall Destination, see page 223.
- **Automatic Fax Detection:** With Automatic Fax Detection, Call Routing Announcement applications and mailboxes can be programmed to automatically route incoming fax calls to a specified extension or to an e-mail address. For information on the Automatic Fax Detection, see page 225.
- **Automatic Speech Recognition (ASR)**: The EM system supports Automatic Speech Recognition (ASR), which is a licensed feature. ASR can be enabled on many levels within the voice processing system. Using EM, subscribers can issue spoken commands to navigate the voice mail menus. Subscribers and non-subscribers can also use spoken commands to search the voice mail directory, and to navigate automated attendant menus and call routing applications. When ASR resources are not available, subscribers and non-subscribers can also perform these tasks by pressing the appropriate dialpad digits when prompted by the system. For information on ASR, see page 226.
- **Call Routing Announcement (CRA):** This application can be used in place of a playback device and is especially useful for programming hunt group announcement and overflow endpoints. When called, the CRA application plays a recording and then hangs up.

  The CRA application uses digit translation to help calling parties reach their intended destinations. Digit translation allows the caller to press a single digit to access a mailbox, a fax-on-demand function, or an endpoint or hunt group. Digit translation can be

programmed for each digit from 0 through 9, #, and *, plus a Timeout option that applies if the caller does not enter a digit when prompted. If programmed, each digit could lead the caller to a "digit translation node" that has its own set of digit translation values. This layered CRA digit translation creates a "tree" of programmable digit translation nodes. For more detailed information about CRA, refer to page 228.

- **Directory Services:** Directory Services provide callers with a list of mailboxes and extension IDs that can be accessed through voice mail or the automated attendant. The Directory feature is available in each of the voice processing systems, but varies slightly in the Enterprise Messaging (EM) system. For information about directories, refer to page 231. For information about using directories in EM, refer to page 234.
- **E-mail Reader**: E-mail Reader is a licensable feature available with the EM voice processing system that provides users with advanced mailbox capabilities through Text-To-Speech (TTS) technology. When E-mail Reader is enabled for a mailbox, users can access voice mail, e-mail, and fax messages by logging in to their mailboxes. E-mail Reader announces the message envelope and can also "read" the text in the body of e-mail messages. E-mail Reader users also have access to additional message options, which vary based on the media type. For information about E-mail Reader, refer to page 237.
- **Fax-On-Demand:** The Fax-On-Demand feature is a specially programmed Call Routing Announcement application that uses digit translation to allow callers to select the documents they want to have faxed to them. Callers can use a DTMF endpoint to request one or more documents from the company's fax library, the library that is also used in the Unified Messaging faxing feature. When the request is completed, the voice processing system places a call to the caller's fax machine to deliver the requested documents. For information about Fax-On-Demand, refer to page 237.
- **Record-A-Call:** This feature allows an endpoint user to record a call-in-progress in a voice mailbox message. When an endpoint user enters the Record-A-Call feature code, the system places a call to the endpoint's assigned Record-A-Call application. When the application answers, the system sets up a conference call with the endpoint's Record-A-Call mailbox. If programmed, the mailbox plays a greeting to indicate that the recording is in progress. For information about the Record-A-Call feature, refer to page 239.
- **Scheduled Time-based Application Routing (STAR):** STAR enhances the programmability of the voice mail application greetings. Applications can be programmed to play alternative greetings for holidays and weekends. A STAR application is a table of up to 20 entries, that serve as a "routing table." The routing table tells the voice processing system which application will be used based on day and time information in the table. The identified applications are programmed to play the greetings and STAR routes the call to the right application. For information about STAR, refer to page 240.
- **Station Message Detail Recording (SMDR) Information Storage:** SMDR information is stored only on the VPU voice processing system hard disk, then processed using call record sorting software. BVM and EM do not support SMDR information storage.
- **Voice Mail and Message Notification Retrieval:** Voice Mail handles all calls that are directed to voice mail (other than through the Message Notification/Retrieval application) by subscribers and non-subscribers. If your system is using EM and E-Mail Reader is enabled for the mailbox, users have access to advanced messaging features using their advanced mailbox. With Voice Mail, callers hear the main company greeting, followed by a menu of available options. Message Notification/Retrieval provides voice mail message notification and quick mailbox access. For information on Voice Mail and Message Notification Retrieval, see (page 241).
- **Unified Messaging:** The Unified Messaging (UM) feature links the voice processing system with e-mail and/or provides outgoing fax capabilities. Depending on which voice processing system you are using, you may have UM version 2.2 or 2.3. For information on UM, see page 247.

Voice Mail Networking

A voice processing system can be installed on any or all nodes in the system network. These voice processing systems can also be networked together to allow a caller to leave a message on the local voice processing system for a mailbox located on another voice processing system in the network.

Maximum capacities of networked voice processing systems are listed in the following table.

Table 3. *Capacities*

FEATURE/DEVICES	CAPAC-ITY
Voice Processing Systems per network	100[a]
Local or Off-Node Mailboxes/Extension IDs per Voice Processing System node	10,000[b]
System Audio Interface Ports per node	40
Applications per node	150
Group Lists per node Members per group list	1000 1500
Remote Message Notification Numbers per mailbox	18
Audiotex Recordings per node	500
Message Notification/Retrieval Applications per node	1
System Passwords per node	4
Time Slot Groups per node	10

[a] This is the maximum number of nodes supported by the software. System traffic may limit the actual number of nodes that can be supported without affecting system performance.

[b] This is the maximum number of mailboxes supported by the NT-based software.

Voice Mail Administrator Functions

As the voice mail administrator, you can use special features that are not provided to other voice mail users (subscribers). The mailbox designated as the administrator mailbox has all of the standard subscriber features, which can be found in the appropriate endpoint user guide, plus the ability to do the following tasks:

- Record a broadcast message.
- Perform mailbox and group list maintenance.
- Create and select custom Audiotex recordings (voice mail company greetings, auto attendant recordings, call routing announcements, and hunt group overflow and announcement endpoint recordings).
- Import fax documents.
- Customize voice mail prompts.

Voice mail administrator features are described in detail on page 43.

Administrator Procedures

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Introduction

When programming your site's database, the Inter-Tel-certified technician can program an endpoint's extension as both a System Administrator and a Voice Mail Administrator. Sometimes the two jobs are handled by the same person. You can use an endpoint that has been designated as an Administrator endpoint to perform certain programming tasks for the call processing system and/or the voice mail system. In addition, the Administrator endpoint shows system and network alarm messages.

Any Inter-Tel endpoint can be designated as a System Administrator endpoint through Database Programming. However, Inter-Tel recommends using a Model 8660 six-line display endpoint for this purpose to facilitate programming and to manage alarm messages. If a non-Administrator station user attempts to use the administrator features, the user will hear reorder tones, and the display will show CANNOT ACCESS RESERVED FEATURE.

NOTE A single line endpoint cannot be used as an Administrator endpoint.

This section provides you with the instructions for performing system and voice mail administrator tasks. The information is presented as follows:

- System Administrator Procedures begin on page 11.
- Voice Mail Administrator Features begin on page 43.

A Quick Reference Guide containing instructions for the most frequently performed procedures is located in the front of this book.

NOTE As an Administrator, you must know which languages are considered Primary and Secondary for the system. The platform supports American English, British English, Spanish, and Japanese prompts and displays.

Scheduled Delayed Major Resets: A delayed major reset is sometimes needed when programming the database using your administrator's endpoint. If a major reset is required, the message, ENTER SYS RESET OPTION is shown on the endpoint display. You can select to perform an immediate major reset when this message is shown, or you can schedule a delayed major reset. The delayed major reset option allows you to schedule a reset to occur when the system is not in use.

The following programming changes, done with an administrator's endpoint do not require a major reset.

- Changing extensions
- Swapping extensions
- Creating off-node devices
- Changing ACD Agent IDs
- Adding and removing extensions from Extension Lists
- Equipping and unequipping devices

System Administrator Procedures

If your endpoint is designated as a system administrator endpoint, you can perform the following procedures:

- Place the local node or other nodes in the network in night or day mode.
- Set the date and time of the local node.
- Set the network date and time and resynchronize clocks in the network.
- Make database changes (see page 13 for a list of programming areas).
- Enable, disable, and reset local and off-node call processing application modems.
- Program System Speed Dial numbers on the local node.
- Receive and clear displayed system and network alarms.
- Use diagnostic mode features:
  - — Freeze and unfreeze the database history for the local node or any node in the network using programmed freeze zones.
  - — Print error logs.
  - — Seize specific devices for troubleshooting purposes.

Any Inter-Tel endpoint can be programmed to be an Administrator endpoint by the database programmer or by another Administrator endpoint.

NOTE A single line endpoint cannot be used as an Administrator endpoint.

If a non-Administrator endpoint user attempts to use the Administrator features, the user will hear reorder tones, and the display will show CANNOT ACCESS RESERVED FEATURE.

Placing the System in Night Mode

An Administrator endpoint can place the local node in day or night mode. The day/night mode determines which lists the system will use for trunk access, toll restriction, etc.

To turn night mode on or off:

While on-hook, enter the Night Ring On/Off feature code (9860). You hear a single confirmation tone. The display shows NIGHT MODE IS ON (or OFF). If night mode was turned on, the display shows THE SYSTEM IS IN NIGHT MODE until day mode is turned on.

Placing Nodes in Day or Night Mode

An Administrator endpoint can place one or more nodes in day or night mode. The day/night mode determines which lists the system will use for trunk access, toll restriction, etc.

The network determines the day/night mode status of a call based on the day/night mode status of the node where the trunk resides.

To turn night mode on:

1. While on-hook, enter the Enable Network Night feature code (9861).
2. When you are prompted to enter a node number., enter 01–63 for the desired node number. To select all nodes, enter 00.

   You hear a single confirmation tone. The display shows NIGHT MODE IS ON. Then the display shows NODE X IS IN NIGHT MODE until day mode is turned on.

To turn day mode on:

1. While on-hook, enter the Enable Network Day feature code (9862).
2. When you are prompted to enter a node number, enter the desired node number.

   You hear a single confirmation tone. The display shows DAY MODE IS ON.

Setting System Date and Time

NOTE Inter-Tel CS-5200/5400 supports the Automatic Daylight Saving Time feature. However, the Enable Daylight Saving Time flag in Database Programming must be set to **Yes** to use the Automatic Daylight Saving Time feature.

A System Administrator can manually reset the system time or date when it is necessary. For example, when the system is defaulted or for daylight-saving time. Any Administrator can change the date and time that appears on all display endpoints and in the SMDR reports. The day of the week is automatically calculated and set by the system when the date is entered.

To set the system date and time:

NOTE If necessary, press MUTE to backspace, or press * or CANCEL to start over.

1. While on-hook, enter the Set Date/Time feature code (9800). Your display shows DATE ***(current date)***.
2. ***If you do not need to change the date,*** press # or **ACCEPT** to skip to the TIME XX:XX prompt.
3. Use the dialpad buttons to enter the month, day, and year. For example, press 020301 for February 3, 2001. When finished, the display shows TIME ***(current time).*** If you entered the date incorrectly, the display shows INVALID DATE, and you are prompted to enter a new date.

   NOTE If using a endpoint programmed for the Japanese language, enter the date as year, month, date. For example, 010203 for February 3, 2005.

   If you do not need to change the time, press # or **ACCEPT** twice to exit. The display shows SYSTEM DATE AND TIME UPDATED.
4. Use the dialpad buttons to enter the time in hours and minutes. For example, enter 0900 for 9:00. If you entered the time incorrectly, the display shows INVALID TIME and you are prompted to enter a new time.
5. ***If the system is set for 12-hour display format,*** the display shows SELECT AM OR PM (AM=1 PM=2). Press 1 (or the **AM** menu button) for AM or press 2 (or the **PM** menu button) for PM. The display shows SYSTEM DATE AND TIME UPDATED. If you press any button other than 1 or 2, the display shows INVALID TIME and you are prompted to enter a new time.

   NOTE If using a endpoint programmed for the Japanese language, the prompts will be reversed and you will set the AM/PM before the hour and minutes.

Setting Network Date and Time

Occasionally, the network time or date needs to be reset, such as when the system is defaulted or for when daylight-saving time is implemented. Any Administrator can change the date and time that appears on all display endpoints and in what appears in the SMDR reports in the network. The day of the week is automatically calculated and set by the system when the date is entered.

To set the network date and time:

NOTE If you make a mistake, press MUTE to backspace or press * or **CANCEL** to leave it unchanged and start over.

1. While on-hook, enter the Set Network Date and Time feature code (9810). Your display shows DATE ***(current date)***.
2. ***If you do not need to change the date,*** press # or **ACCEPT** to skip to the TIME XX:XX prompt.
3. Use the dialpad buttons to enter the month, day, and year. For example, press 020301 for February 3, 2001. When finished, the display shows TIME ***(current time).***

   NOTE If using a endpoint programmed for the Japanese language, enter the date as year, month, date. For example, 010203 for February 3, 2001.

   If you entered the date incorrectly, the display shows INVALID DATE, and you are prompted to enter a new date.

   If you do not need to change the time, press # or **ACCEPT** twice to exit. The display shows SYSTEM DATE AND TIME UPDATED.
4. Use the dialpad buttons to enter the time in hours and minutes. (For example, enter 0900 for 9:00.)

   NOTE If using a endpoint programmed for Japanese, the prompts will be reversed and you will set the AM/PM before the hour and minutes.

   If you entered the time incorrectly, the display shows INVALID TIME, and you are prompted to enter a new time.
5. ***If the node is set for 12-hour display format,*** the display shows SELECT AM OR PM (AM=1 PM=2). Press 1 (or the **AM** menu button) for AM or press 2 (or the **PM** menu button) for PM. The display shows SYSTEM DATE AND TIME UPDATED. If you press any button other than 1 or 2, the display shows INVALID TIME, and you are prompted to enter a new time.

Synchronizing Network Time

Administrators can synchronize the minutes past the hour across the network without changing the hour. This is useful when the nodes are in different time zones.

NOTE If the node time is off by more than 30 minutes, synchronizing the minutes may cause the hour to change. Also, network time is automatically synchronized every day at 12:30 AM (00:30), using the time setting on the node with the lowest number.

To synchronize the clocks in all nodes in the network:

While on-hook, enter the Synchronize Network Time feature code (9811). You hear a confirmation tone, and the display shows NETWORK TIME SYNCHRONIZED.

Programming the Database Using an Administrator Endpoint

Any Administrator endpoint can perform database programming using an Inter-Tel endpoint. However, programming requires a *display* endpoint, and Inter-Tel recommends the Model 8660 endpoint.

An Administrator endpoint can be used to program the following:

Endpoint Programming:

- Create or delete Administrator endpoints.
- Create or delete Attendant endpoints.
- Create or delete House Phones.
- Assign endpoints to Attendants.
- Program usernames.
- Program endpoint toll restriction.

System Option Programming:

- Program Do-Not-Disturb (DND) messages.
- Program up to 10 passwords for the Database Programming feature.
- Program endpoint extensions.
- Swap extensions.

Trunk Programming:

- Individual trunk answer supervision type, caller information, hybrid balance, signaling type (DTMF or pulse), and trunk group assignment.
- Trunk group answer access, ring-in, toll restrictions, and trunk lists.

A password can protect entry to the Database Programming feature at the Administrator endpoint. A password prevents unauthorized users from altering the system database.

NOTE Passwords are very important to system security. Without sufficient password protection, the system database is vulnerable to unauthorized access.

Depending on the database changes, the system may require a reset after programming. If so, the system will prompt you for a reset and ask if it should be done immediately or delayed. Delaying the reset may prevent interruption in service. However, if a reset is required it should be done as soon as possible to permit proper system operation.

NOTE A system reset will drop all calls in progress.

Entering Alphanumeric Information:

When entering alphanumeric information, such as a username, reminder message, or Do-Not-Disturb message, press **MSG** or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (#) button is used for entering a hyphen (-), and the asterisk (*) button is used for entering a colon (:). For example, 1*00 would enter “1:00” in numeric mode.
- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter “JEAN” in English. When adjoining characters are located under the same button, press **FWD** to advance to the next character. For example, 66 **FWD** 6667776 would enter “NORM.”

  Refer to the table on the following page to program information in alphanumeric mode.

(Note that letters correspond to the letters printed on dialpad buttons.) Japanese characters are available with the standard Multilingual Support feature included in your software license. Japanese is programmed as a Primary or Secondary Language, and the Administrator's endpoint is set for Japanese.

Use the following table to guide you as you program alphanumeric information.

Table 4: *Alphanumeric Input Through a Keypad*

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS****					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

Endpoint Programming

You can use your Administrator endpoint to program the following endpoint information:

- **Create or delete Administrator endpoints:** You can program any non-single line Inter-Tel endpoint to be an additional Administrator endpoint, or you can delete Administrator endpoints.
- **Create or delete Attendant endpoints:** You can program any endpoint to be an Attendant endpoint, or you can delete Attendants.
- **Create or delete House Phones:** You can program any endpoint to be a House Phone, or you can delete House Phones.
- **Assign endpoints to Attendants:** You can change the assigned Attendant for each endpoint.
- **Program usernames:** You can program or change the username for any endpoint.
- **Program endpoint toll restrictions:** You can program toll restriction classes of service for the endpoints. Endpoint toll restrictions are described in detail on page 126.

The endpoint Database Programming process is summarized in the flowchart shown on page 19. For a Program Planning Sheet, refer to page 55.

NOTE If necessary, at any time during the following procedure you can press the asterisk (*) or Speaker button to cancel programming and discard any unsaved changes.

To program endpoints:

1. While on-hook, enter the Program Database feature code (9932).
2. ***If a password is required,*** the display shows ENTER PASSWORD. Use the dialpad to enter your 1-8 digit password and press #. (If you enter an incorrect password or do not press #, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.
3. The display shows ENTER DATABASE OPTION. (Display endpoints also show the options: ENDPOINT, SYSTEM, and TRUNK.) Press 1 or the **ENDPOINT** menu button.
4. The display shows ENTER ENDPOINT EXTENSION. Enter the extension number of the endpoint to be programmed using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

   Enter a complete number: Enter the extension number using your dialpad. When the circuit information is displayed, press # again to continue.

   Enter a partial number: Enter a partial extension number, then press #, the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, username and circuit number of the endpoint that most closely matches the partial extension number. Press # or **ACCEPT** to program the displayed endpoint, or scroll to another endpoint as described below.

   Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward. When the desired extension number is displayed, press # or **ACCEPT** to continue.

5. The display shows ENTER ENDPOINT OPTION. Select one of the following:

   a. *Endpoint Flags:* This option allows you to set the Administrator Endpoint, Attendant, and House Phone flags. To select it, press 1 or the **ENDPOINT FLAGS** menu button. There are three flags that can be programmed: Administrator, Attendant, and House Phone. (However, you cannot program the Administrator flag for your own endpoint or for a single line endpoint.) To program the flags, do the following:

      1.) ***To scroll to the desired flag:*** Press the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward.

      2.) ***To enable or disable a displayed flag:*** Press 1 or the **ON** menu button to enable the flag. Or, press 2 or the **OFF** menu button to disable the flag.

      3.) ***To save your programming when all flags are set correctly:*** Press # or **ACCEPT** to save the new flag settings. The display shows DATABASE UPDATED and then returns to the ENTER ENDPOINT OPTION prompt.

      4.) ***To exit without saving your changes:*** Press * or **CANCEL** to exit. The display shows NO UPDATE PERFORMED and then returns to the ENTER ENDPOINT OPTION prompt.

   b. *Endpoint Information:* This option allows you to select an Attendant for the endpoint or program the endpoint's username. To select it, press 2 or the **ENDPOINT INFO** menu button. The display shows ENTER ENDPOINT INFO OPTION. Select one of the following:

      1.) ***Attendant:*** To assign an Attendant to serve this endpoint, press 1 or the **ATTENDANT** menu button. The display shows ENTER ATTENDANT EXTENSION. Enter the desired extension number. When the circuit information is displayed, press # again to return to the ENTER ENDPOINT INFO OPTION prompt. The display shows DATABASE UPDATED. (Or, to cancel your entry, press * or **CANCEL**. The display shows NO UPDATE PERFORMED.)

      2.) ***Username:*** To change the username of the endpoint, press 2 or the **USERNAME** menu button. The display shows ENTER USERNAME. Enter the new name as described on page 14. (Or, to cancel your entry, press * or **CANCEL**. The display shows NO UPDATE PERFORMED.)

   c. *Toll Restriction:* This option allows you to set the endpoint class of service for day and/or night modes. To select it, press 3 or the **TOLL RESTRICTION** menu button. Then do the following:

      1.) The display shows TOLL RESTRICTION OPTION. Press 1 or the **COS DAY** menu button to program day mode toll restriction. Or, press 2 or the **COS NIGHT** menu button to program night mode toll restriction.

      2.) The display shows SET DAY (or NIGHT) COS XX. If this is not the COS you want to program, scroll to the correct COS by pressing the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward. See page 126 for more information abut COS.

      The default COS numbers are provided in Table 5, following.

Table 5: *Default COS Numbers*

COS 02 – Deny Area/Office	COS 06 – Deny Equal Access
COS 03 – Deny Operator	COS 07 – Deny Local Calls
COS 04 – Deny Toll Access	COS 08 – Denied Numbers
COS 05 – Deny International	COS 09 – Allowed Numbers

3.) When the correct COS is displayed, press 1 or the **ON** menu button to enable the toll restriction. Or, press 2 or the **OFF** menu button to disable it.

4.) If desired, repeat step cstep 2 and step cstep 3 to program additional COS toll restrictions.

5.) Press # or **ACCEPT** to save the COS programming. The display shows DATABASE UPDATED and then returns to the TOLL RESTRICTION OPTION prompt.

6.) Press # again to exit to the ENTER ENDPOINT OPTION prompt.

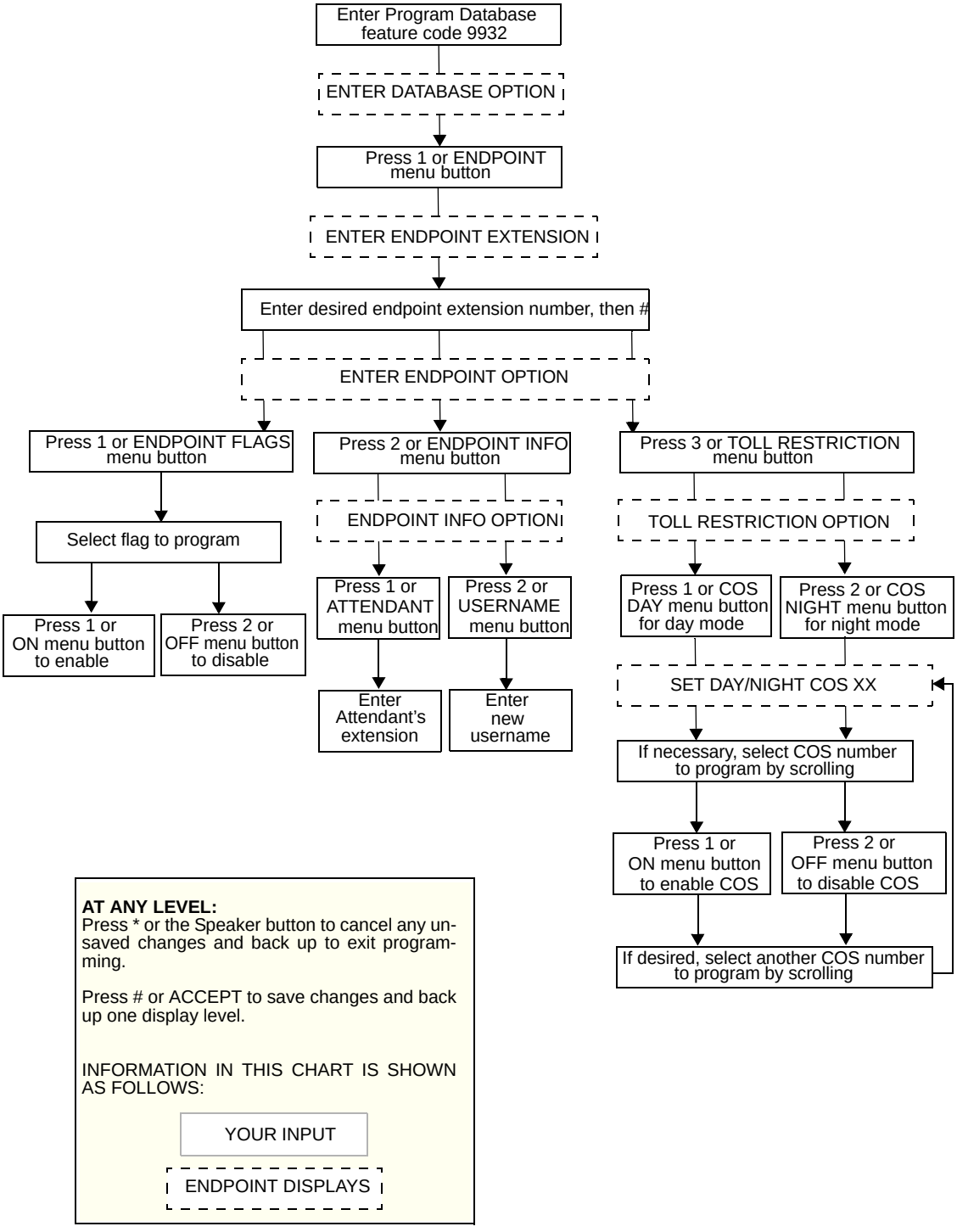
6. When the display shows ENTER ENDPOINT OPTION, press # again to exit to the ENTER ENDPOINT EXTENSION prompt. You can then program another endpoint by repeating these steps or press # or **ACCEPT** once more to exit to the ENTER DATABASE OPTION prompt.
7. When finished with all programming, press # while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.
8. ***If a system reset is required,*** the display shows ENTER SYS RESET OPTION. Do one of the following:

— ***Delayed Reset:*** Press 1 or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the pre-programmed time.

— ***Immediate Reset:*** Press 2 or the **IMMEDIATE** menu button to reset the system now.

NOTE A system reset will drop all calls in progress.

Figure 1. *Endpoint Database Programming Flowchart*


Enter Program Database feature code 9932
ENTER DATABASE OPTION
Press 1 or ENDPOINT menu button
ENTER ENDPOINT EXTENSION
Enter desired endpoint extension number, then #
ENTER ENDPOINT OPTION
Press 1 or ENDPOINT FLAGS menu button
Press 2 or ENDPOINT INFO menu button
Press 3 or TOLL RESTRICTION menu button
Select flag to program
ENDPOINT INFO OPTION
TOLL RESTRICTION OPTION
Press 1 or ON menu button to enable
Press 2 or OFF menu button to disable
Press 1 or ATTENDANT menu button
Press 2 or USERNAME menu button
Press 1 or COS DAY menu button for day mode
Press 2 or COS NIGHT menu button for night mode
Enter Attendant's extension
Enter new username
SET DAY/NIGHT COS XX
If necessary, select COS number to program by scrolling
Press 1 or ON menu button to enable COS
Press 2 or OFF menu button to disable COS
If desired, select another COS number to program by scrolling
AT ANY LEVEL:
Press * or the Speaker button to cancel any unsaved changes and back up to exit programming.
Press # or ACCEPT to save changes and back up one display level.
INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:
YOUR INPUT
ENDPOINT DISPLAYS

System Programming

You can use your Administrator endpoint to program the following system-wide information:

- **Define Do-Not-Disturb (DND) messages:** The messages for the Do-Not-Disturb feature can be reprogrammed through an Administrator's endpoint. (Refer to page 200 for information concerning their use.) Administrators can delete or change messages 01-20 to any value (up to 16 characters). When the system has a programmed Primary and Secondary Language, the system has default DND messages in both languages. (Available languages are American English, British English, Spanish, and Japanese.) The current language of the programming endpoint determines which list is programmed. (See page 141 for a description of the Change Language feature.) The Secondary Language translation has the same meaning as the Primary Language message. The following table lists the default DND messages.

Table 6: *Default Do-Not-Disturb Messages*

01 DO-NOT-DISTURB	11 OUT OF TOWN 'TIL
02 LEAVE A MESSAGE	12 OUT OF OFFICE
03 IN MEETING UNTIL	13 OUT UNTIL
04 IN MEETING	14 WITH A CLIENT
05 ON VACATION 'TIL	15 WITH A GUEST
06 ON VACATION	16 UNAVAILABLE
07 CALL ME AT	17 IN CONFERENCE
08 AT THE DOCTOR	18 AWAY FROM DESK
09 ON A TRIP	19 GONE HOME
10 ON BREAK	20 OUT TO LUNCH

When two languages are enabled and DND messages are changed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language message 02 is changed to "PAGE ME," a similar message should be programmed for the Secondary Language message 02.

- **Select an Administrator Database Programming password:** Entry to the Database Programming feature at the Administrator endpoints can be protected using a password. A password would prevent unauthorized users from altering the system database.
- **Define reminder messages:** System reminder messages can be changed using an Administrator's endpoint. (See page 209 for information about using reminder messages.) The messages can have up to 16 characters each. When Primary and Secondary Languages are enabled, the system has default reminder messages in both languages. The current language of the programming endpoint determines which list is programmed. (See page 141 for a description of the Change Language feature.) Each Secondary Language translation has the same meaning as the Primary Language message. The following table lists the default reminder messages.

Table 7: *Default Reminder Messages*

01 MEETING	11 CALL ENGINEERING
02 STAFF MEETING	12 CALL MARKETING
03 SALES MEETING	13 CALL ACCOUNTING
04 CANCEL MEETING	14 CANCEL DND
05 APPOINTMENT	15 CANCEL CALL FWD
06 PLACE CALL	16 TAKE MEDICATION
07 CALL CLIENT	17 MAKE RESERVATION
08 CALL CUSTOMER	18 REVIEW SCHEDULE
09 CALL HOME	19 LUNCH
10 CALL CORPORATE	20 REMINDER

When two languages are enabled and reminder messages are changed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language message 02 is changed to "GO TO AIRPORT," a similar message should be programmed for the Secondary Language message 02.

- **Program new extension numbers for endpoints:** The extension number for any endpoint can be changed by an Administrator. The new extension number cannot conflict with an existing number.
- **Swap extensions:** An extension number can be relocated (swapped) to another endpoint. To swap extensions, the two affected endpoints must meet the following criteria:
  - — Both devices must reside on the same node as the Administrator performing the swap.
  - — Both devices must be the same type (i.e., both Inter-Tel Protocol (ITP), both SIP, or both single line endpoints).
  - — Neither device can be the Administrator endpoint performing the swap.

The System-Wide Database Programming process is summarized in the flowchart shown on page 25. See page 55 for a Program Planning Sheet.

If necessary, you can press * or the Speaker button to cancel programming and discard any unsaved changes, at any time during the following procedure.

To program the system database:

NOTE If you want to change the Japanese DND or reminder message settings, make sure your endpoint is set in Japanese mode. See page 141 for an explanation of the Change Language feature.

1. While on-hook, enter the Program Database feature code (9932).
2. ***If a password is required,*** the display shows ENTER PASSWORD. Use the dialpad to enter your 1-8 digit password and press #. (If you enter an incorrect password, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.

3. The display shows ENTER DATABASE OPTION. (Display endpoints show the options: ENDPOINT, SYSTEM, and TRUNK.) Press 2 or the **SYSTEM** menu button.
4. The display shows ENTER SYSTEM OPTION. Select one of the following:
   a. ***Do-Not-Disturb Messages:*** This option allows you to program the DND messages used by the endpoints. To select it, press 1 or the **DND MESSAGES** menu button. Then do the following:
      1.) The display shows SELECT DND MESSAGE #. Enter a message number or scroll to the desired message. (To scroll to the correct message, press the Volume button or the **SCROLL** plus **NEXT** and **PREVIOUS** menu buttons.)
      2.) When the display shows the desired DND message, enter the new message as described on page 14.
      3.) Press # or **ACCEPT** to save the new message. The display shows DATABASE UPDATED and then returns to the SELECT DND MESSAGE prompt. (Or, to cancel your entry, press * or **CANCEL**. The display shows NO UPDATE PERFORMED.)
      4.) To program another message, scroll to the desired message and repeat these steps.
      5.) Press # again to exit to the ENTER SYSTEM OPTION prompt.
   b. ***Password:*** This option allows you to set a password that limits access to the Administrator programming feature. To select it, press 2 or the **PASSWORD** menu button. Then do the following:
      1.) The display shows CHANGE PASSWORD TO. Enter a password of up to eight digits, then press #. (Or, to erase the password and leave it blank, just press #.)
      2.) The display shows VERIFY PASSWORD. Enter the password exactly as you did in the step above, followed by #. The display returns to the ENTER SYSTEM OPTION prompt. (If you hear reorder tones and see an error message, the passwords did not match and you must start over at the CHANGE PASSWORD prompt.)
   c. ***Reminder Messages:*** This option allows you to program the reminder messages used by the endpoints. To select it, press 3 or the **REMINDER MSGS** menu button. Then do the following:
      1.) The display shows SELECT REMINDER MSG #. Enter a message number or scroll to the desired message. (To scroll to the message, press the Volume button or the **SCROLL** plus **NEXT** and **PREVIOUS** menu buttons.)
      2.) When the display shows the desired message, enter the new message as described on page 14.
      3.) Press # or **ACCEPT** to save the new message. The display shows DATABASE UPDATED and then returns to the SELECT REMINDER MSG prompt. (Or, to cancel your entry, press * or **CANCEL**. The display shows NO UPDATE PERFORMED.)
      4.) To program another message, scroll to the desired message and repeat these steps.
      5.) Press # again to exit to the ENTER SYSTEM OPTION prompt.
   d. ***Endpoint Extensions:*** This option allows you to assign new extension numbers to endpoints. To select it, press 4 or the **STN EXTENSION** menu button.

If programming a endpoint:

1.) Press 1 or **CHANGE EXT.** The display shows ENTER ENDPOINT EXTENSION. Enter the extension number of the endpoint to be programmed using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

Enter a complete number: Enter the extension number using your dialpad. When a valid number is entered, the circuit information is displayed. Press # again to continue.

Enter a partial number: Enter a partial extension number, then press #, the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, username and circuit number of the endpoint that most closely matches the partial extension number. Press # or **ACCEPT** to program the displayed endpoint, or scroll to another endpoint as described on the following page.

Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press # or **ACCEPT** to continue.

2.) The display shows CHANGE X (***number)*** TO EXTENSION. Enter the new extension number for the endpoint. If you enter an invalid number, you hear reorder tones and must try again. ***If you entered an extension number that is already assigned,*** the display shows CONFLICTING EXTENSION and you hear reorder tones. When the display returns to ENTER ENDPOINT EXTENSION, you must start over and select a new extension number.

3.) Press # or **ACCEPT** to exit to the ENTER ENDPOINT EXTENSION prompt. The display shows UPDATING DATABASE for four seconds and then DATABASE UPDATED. (Or, to cancel your entry, press * or **CANCEL**. The display shows NO UPDATE PERFORMED.)

NOTE Although the system begins to update the database when you press # or **ACCEPT**, it may take longer than the four-second display to change the extension in the system, especially in a large or busy system.

4.) Press # or **ACCEPT** again to exit to the ENTER SYSTEM OPTION prompt. (If an extension number is displayed, press * to exit, instead of # or **ACCEPT**.)

If swapping endpoints:

1. Press 2 or **SWAP EXTS**. The display shows ENTER ENDPOINT EXTENSION. Enter the first extension number to be swapped using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

Enter a complete number: Enter the extension number using your dialpad. When a valid number is entered, the circuit information is displayed. Press # or **ACCEPT** to continue.

Enter a partial number: Enter a partial extension number, then press the # button, the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, user name and circuit number of the endpoint that most closely matches the partial extension number. Press # or **ACCEPT** to continue, or scroll to another endpoint as described below.

Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press # or **ACCEPT** to continue.

NOTE If the feature times out while entering an extension number, the displays shows INCOMPLETE EXTENSION.

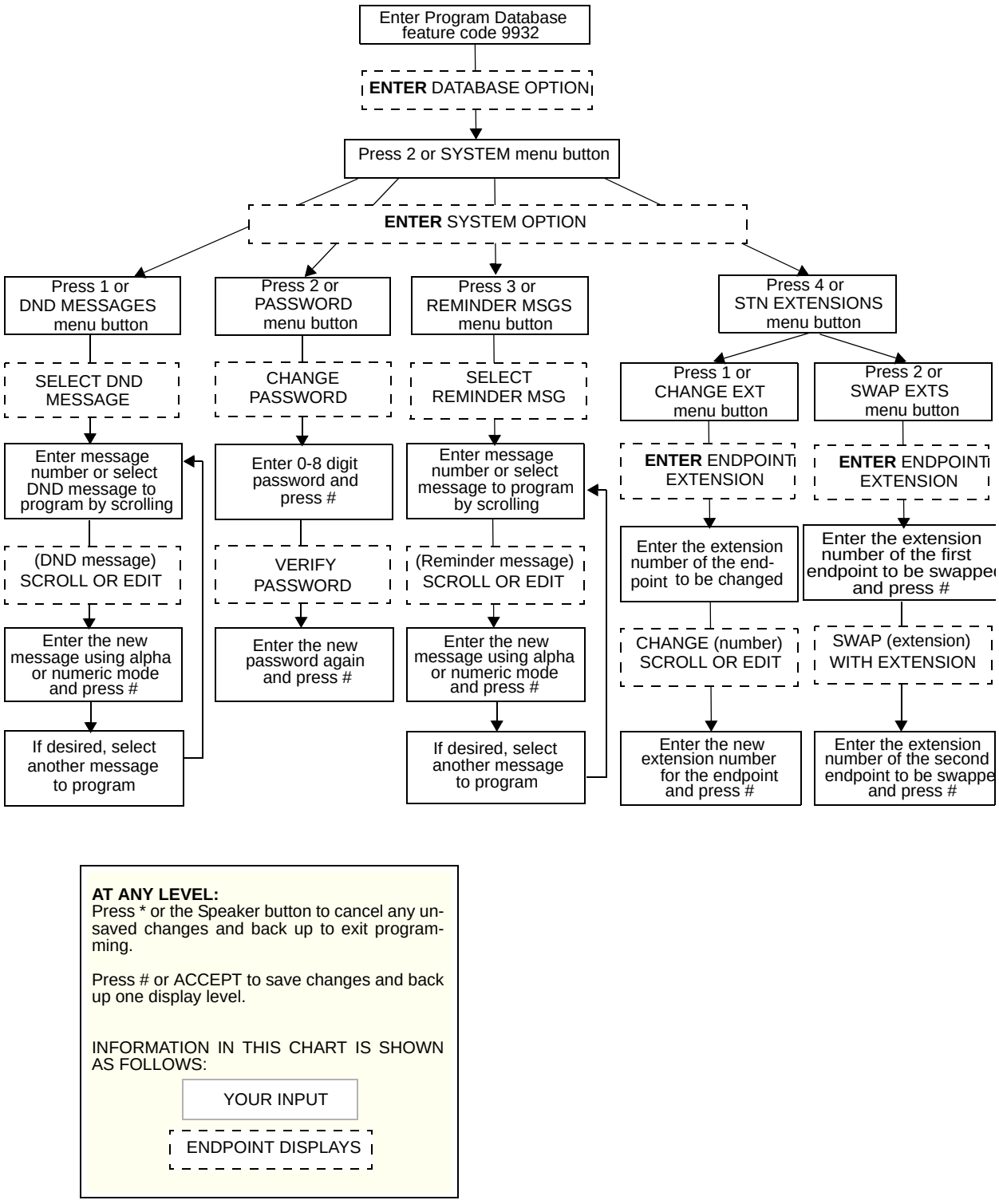
2. The display shows SWAP *(extension)* WITH EXTENSION. Enter the second extension number to be swapped using the same methods previously described. The display shows DATABASE UPDATED.

NOTE If you cancel or terminate the feature without entering the second extension number, the system discards any changes that have not yet been saved, and the display shows NO UPDATE PERFORMED. If the entered extension is the Administrator endpoint performing the swap, the same extension number as the target endpoint, or the wrong device type, the display shows CONFLICTING EXTENSION.

3. When the display shows ENTER SYSTEM OPTION, press # again to exit to the ENTER DATABASE OPTION prompt.
4. When finished with all programming, press # while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.
5. ***If a system reset is required,*** the display shows ENTER SYS RESET OPTION. Do one of the following:
   - ***Delayed Reset:*** Press 1 or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the pre-programmed time.
   - ***Immediate Reset:*** Press 2 or the **IMMEDIATE** menu button to reset the system now.

     NOTE A system reset will drop all calls in progress.

Figure 2. *System Database Programming Flowchart*


Enter Program Database feature code 9932
ENTER DATABASE OPTION
Press 2 or SYSTEM menu button
ENTER SYSTEM OPTION
Press 1 or DND MESSAGES menu button
Press 2 or PASSWORD menu button
Press 3 or REMINDER MSGS menu button
Press 4 or STN EXTENSIONS menu button
SELECT DND MESSAGE
CHANGE PASSWORD
SELECT REMINDER MSG
Press 1 or CHANGE EXT menu button
Press 2 or SWAP EXTS menu button
Enter message number or select DND message to program by scrolling
Enter 0-8 digit password and press #
Enter message number or select message to program by scrolling
ENTER ENDPOINT EXTENSION
ENTER ENDPOINT EXTENSION
(DND message) SCROLL OR EDIT
VERIFY PASSWORD
(Reminder message) SCROLL OR EDIT
Enter the extension number of the end-point to be changed
Enter the extension number of the first endpoint to be swappe and press #
Enter the new message using alpha or numeric mode and press #
Enter the new password again and press #
Enter the new message using alpha or numeric mode and press #
CHANGE (number) SCROLL OR EDIT
SWAP (extension) WITH EXTENSION
If desired, select another message to program
If desired, select another message to program
Enter the new extension number for the endpoint and press #
Enter the extension number of the second endpoint to be swappe and press #

AT ANY LEVEL:
Press * or the Speaker button to cancel any unsaved changes and back up to exit programming.

Press # or ACCEPT to save changes and back up one display level.

INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:

YOUR INPUT

ENDPOINT DISPLAYS

Trunk Programming

The trunk information that can be programmed by an Administrator endpoint includes the following:

Individual trunks:

- **Answer Supervision type:** Answer Supervision determines whether the system should consider a call valid when it receives polarity reversal from the central office or wait for the Valid Call timer to expire. Any outside call put on hold becomes valid immediately, regardless of Answer Supervision or Valid Call timer status. There are three options available under Answer Supervision type:
  - **Polarity Reversal:** A loop reversal must be received to consider the call valid. When the first loop reversal is received, the call is made valid immediately, and the Inter-Tel endpoint display will begin call cost. When a second loop reversal is received, the system will terminate the call.

    NOTE If a second loop reversal is not received, the system will not terminate the call unless the inside party hangs up or loss-of-loop is received from the telephone company.

  - **Valid Call Timer:** After the Valid Call Timer expires, the call is validated. All polarity reversals received before and after the Valid Call Timer are ignored.
  - **Valid Call Timer with Polarity Reversal:** If a loop reversal is received before the Valid Call Timer expires, the call will be made valid immediately, and the Inter-Tel endpoint display will begin call cost. When a second loop reversal is received, the system will terminate the call. If a loop reversal is not received before the Valid Call Timer expires, the call will be made valid by the timer. If a loop reversal is received after the timer expires, the loop reversal is ignored, but the call cost is reset. If a second loop reversal is then received, the system will terminate the call.

    NOTE If a second loop reversal is not received, the system will not terminate the call unless the inside party hangs up or loss-of-loop is received from the telephone company.

- **Caller ID:** When selected, the Caller ID option indicates that the associated trunk will provide caller identification signals. This capability can be programmed because of the Advanced CO Interfaces feature that is included in your software license.
- **Hybrid balance:** Hybrid balance can be set to Normal or Short to allow the installer to adjust the hybrid impedance of the trunk based on local central office conditions.
  - ***Short:*** The short balance is used when trunks are supplied by other equipment located within the same building, using private, copper wire termination (e.g., an OPX supplied by another PBX that does not use the public network) or when the site is located close to the central office.
  - ***Normal:*** The normal balance can be used by most trunks.
- **DTMF or dial pulse signaling:** Trunks can be set for DTMF or dial pulse signals.
- **Trunk group assignment:** Trunks can be assigned to trunk groups on an individual basis.
- **Busy trunk:** This feature allows you to temporarily remove a trunk from service. While the trunk is out of service, it cannot be used for placing outgoing calls. However, incoming calls on analog trunks will ring in and can be answered. Incoming calls on ISDN trunks cannot be answered. The trunk will remain out of service until the Trunk Busy Out timer expires or you place the trunk back in service.

Trunk groups:

- **Day/Night Answer Access:** You can program separate lists for endpoints with allowed-answer access in day and night modes.
- **Day/Night Ring-In:** You can program separate lists of endpoints with ring-in for day and night modes.
- **Change Toll Restrictions:** You can program toll restriction classes of service for the trunk groups. Classes of service are described in detail on page 126.
- **Trunk List:** Each trunk group has a programmed list of individual trunks.

The Trunk Database Programming process is summarized in the flowchart shown on page 31. See page 55 for a Program Planning Sheet.

NOTE If necessary, at any time during the following procedure you can press the asterisk (*) or Speaker button to cancel programming and discard any unsaved changes.

Entering extension numbers:

When the procedure asks you to enter an endpoint, trunk, or trunk group extension number, you can use any of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

- **Enter a complete number:** Enter the extension number using your dialpad. When the circuit information is displayed, press # again to continue.
- **Enter a partial number:** Enter a partial extension number then press #, the high end of the Volume button, or the # menu button. The display shows the extension number, username and circuit number of the endpoint, trunk, or trunk group that most closely matches the partial extension number. Press # or **ACCEPT** to accept the displayed extension, or scroll to another endpoint as described below.
- **Scroll through the numbers:** To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press # or **ACCEPT** to continue.

To program trunk information:

1. While on-hook, enter the Program Database feature code (9932).
2. ***If a password is required,*** the display shows ENTER PASSWORD. Use the dialpad to enter your 1–8 digit password and press #. (If you enter an incorrect password, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.
3. The display shows ENTER DATABASE OPTION. (Six-line displays also show the following options: ENDPOINT, SYSTEM, and TRUNK.) Press 3 or the **TRUNK** menu button. The display shows ENTER TRUNK OPTION.
4. **To Program an Individual Trunk:** Press 1 or the **INDIVIDUAL TRUNK** menu button. Then program trunk options as follows:
   a. The display shows ENTER TRUNK EXTENSION. Enter the extension number of the trunk to be programmed using one of the methods described on page 27.
   b. The display shows INDIVIDUAL TRUNK OPTION. Enter one of the following options. To view the last two options on a display endpoint, press the arrow (<< or >>) menu button at the bottom of the display.

Answer Supervision: To program the answer supervision for the trunk, press **1** or the **ANS SUPERVISION** menu button. When the display shows ANS SUPERVISION OPTION, press **1** or the **POLARITY REVERSE** menu button for the polarity-reversal supervision type. Or, press **2** or the **VALID CALL** menu button for Valid Call timer supervision. Or, press **3** or the **VALID + POLARITY** menu button for Valid Call timer with Polarity Reversal supervision. Then press **#** or **ACCEPT** to continue.

Caller ID: To enable or disable Caller ID, press **2** or the **CALLER ID** menu button. When the display shows SET CALLER ID, press **1** or **ON** to enable the feature, or press **2** or **OFF** to disable it. Then press **#** or **ACCEPT** to continue.

Hybrid Balance: To set the hybrid balance of the trunk to normal or short, press **3** or the **HYBRID BALANCE** menu button. When the display shows HYBRID BALANCE OPTION, press **1** or the **NORMAL** menu button, or press **2** or the **SHORT** menu button. Then press **#** or **ACCEPT** to continue.

DTMF/Dial-Pulse Signaling: To set the trunk for DTMF or dial-pulse signaling, press **4** or the **SIGNALING** menu button. When the display shows ENTER SIGNALING OPTION, press **1** or the **DTMF** menu button, or press **2** or the **PULSE** menu button. Then press **#** or **ACCEPT** to continue.

Trunk Group Number: To assign the trunk to a trunk group, press **5** or the **TRUNK GROUP** menu button. When the display shows ENTER TRUNK GRP EXTENSION, enter the desired trunk group number using one of the methods described on page 27.

Busy Trunk: To temporarily remove the trunk from service, press **6** or the **BUSY TRUNK** menu button. When the display shows MARK TRUNK BUSY, press **1** or the **ON** menu button, or press **2** or the **OFF** menu button. Then press **#** or **ACCEPT** to continue.

c. To exit, press **#** or **ACCEPT** to move backward through the prompts until you reach the ENTER DATABASE OPTION prompt.

5. **To Program A Trunk Group:** Press 2 or the **TRUNK GROUP** menu button. Then program the trunk group, as follows:

   a. The display shows ENTER TRUNK GRP EXTENSION. Enter the extension number of the trunk group to be programmed using one of the methods described on page 27.

   b. The display shows ENTER TRUNK GROUP OPTION. Select one of the following options. To view the last three options on a display endpoint, press the arrow (<< or >>) menu button at the bottom of the display.

      Answer Access For Day Or Night Mode: To program the endpoint(s) that will have answer access for this trunk group for day mode, press 1 or the **ANS-ACCESS DAY** menu button. To program for night mode, press 2 or the **ANS-ACCESS NIGHT** menu button. When the display shows ENTER ENDPOINT EXTENSION, perform the procedure described on the following page.

      1.) Enter a endpoint extension using one of the methods described on page 27.

      2.) The display shows the extension number and a Yes/No prompt. To include the endpoint in the list, press 1 or the **YES** menu button, followed by #. Or, to exclude the endpoint from the list, press 2 or the **NO** menu button, followed by #.

      3.) When the display returns to ENTER ENDPOINT EXTENSION, select another extension number. Or, if finished programming the endpoint list, press # or **ACCEPT** to continue.

      Ring-In For Day Or Night Mode: To program the endpoint that will have ring in for this trunk group for day mode, press 3 or the **RING-IN DAY** menu button. To program for night mode, press 4 or the **RING-IN NIGHT** menu button. When the display shows ENTER ENDPOINT EXTENSION, enter endpoints into the list one at a time as described above for Answer Access.

      Toll Restriction: To program the toll restrictions for the trunk group, press 5 or the **TOLL RESTRICTION** menu button. When the display shows TOLL RESTRICTION OPTION, press the numbers that correspond to the toll restrictions you want to program, as follows:

      1.) ***COS for day or night mode:*** To program the toll restriction class of service for day mode, press 1 or the **COS DAY** menu button. To program class of service for night mode, press 2 or the **COS NIGHT** menu button. The display shows SET DAY (or NIGHT) COS XX. If this is not the COS you want to program, scroll to the correct COS by pressing the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. The default COS numbers are listed below. (See page 126 for definitions. COS 01 is not used for trunks.) When the correct COS is displayed, press 1 or the **ON** menu button to enable the toll restriction. Or, press 2 or the **OFF** menu button to disable it. If desired, repeat this step to program additional COS toll restrictions. Then press # or **ACCEPT** to continue.

COS 02 – Deny Area/Office	COS 06 – Deny Equal Access
COS 03 – Deny Operator	COS 07 – Deny Local Calls
COS 04 – Deny Toll Access	COS 08 – Denied Numbers
COS 05 – Deny International	COS 09 – Allowed Numbers

      2.) ***Exempt from ARS:*** To program the Exempt from ARS option, press 3 or the **EXEMPT FROM ARS** button. When the display shows EXEMPT FROM

ARS, press 1 or the **YES** menu button to enable the option. Or, press 2 or the **NO** menu button to disable it. Then press # or **ACCEPT** to continue.

3.) ***Subject to toll restriction:*** To program the trunk group Subject to Toll Restriction option, press 4 or the **SUBJECT TO TOLL** menu button. When the display shows SUBJECT TO TOLL, press 1 or the **YES** menu button to enable the option. Or, press 2 or the **NO** menu button to disable it. Then press # or **ACCEPT** to continue.

Trunk List: To program the list of trunks for the trunk group, press 6 or the **TRUNK LIST** menu button. When the display shows ENTER TRUNK EXTENSION, enter trunks into the list as follows:

1.) Enter a trunk extension using one of the methods described on page 27.

2.) The display shows the extension number and a Yes/No prompt. Press 1 or the **YES** menu button, followed by #, to include the trunk in the list. Or, press 2 or the **NO** menu button, followed by #, to exclude the trunk from the list.

3.) When the display returns to ENTER TRUNK EXTENSION, select another extension number. Or, if finished programming the trunk list, press # or **ACCEPT** to continue.

c. To exit, press # or **ACCEPT** to move backward through the prompts until you reach the ENTER DATABASE OPTION prompt.

6. When finished with all programming, press # while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.

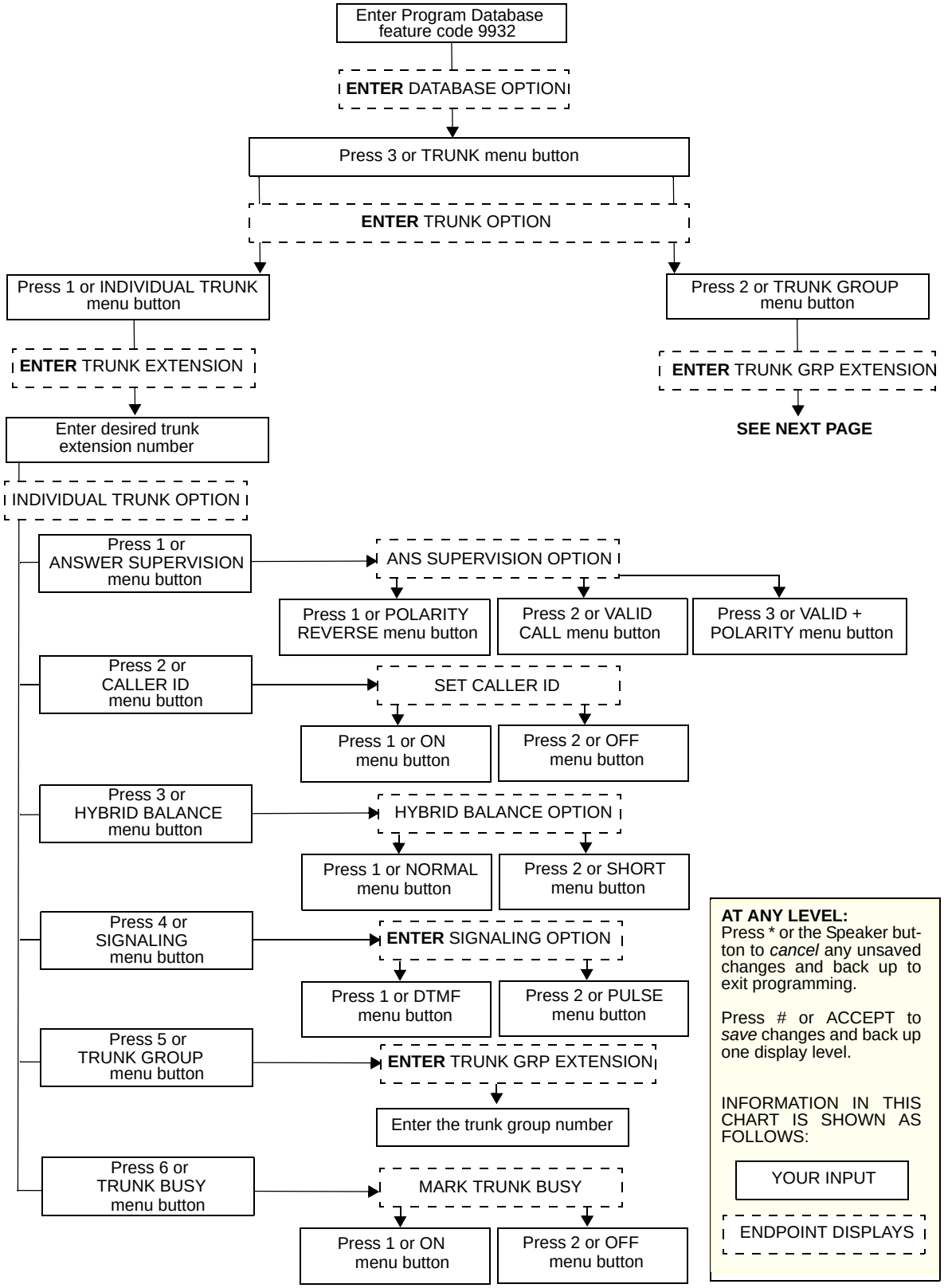
7. ***If a system reset is required,*** the display shows ENTER SYS RESET OPTION. Do one of the following:

- ***Delayed Reset:*** Press 1 or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the preprogrammed time.
- ***Immediate Reset:*** Press 2 or the **IMMEDIATE** menu button to reset the system now.

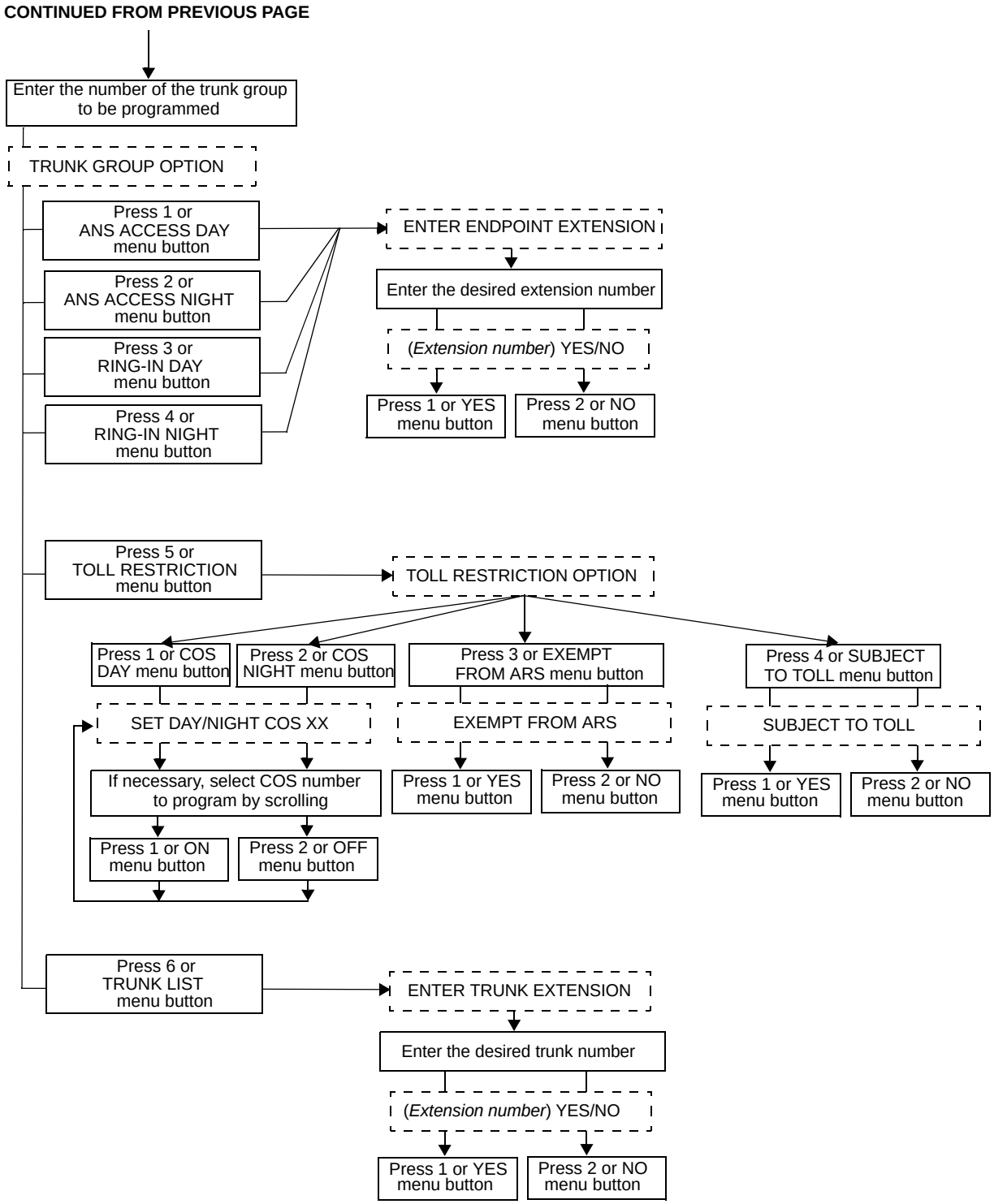
CAUTION

Possible interruption of calls in progress. When the system is Reset, all calls in progress are dropped immediately.

Figure 3. *Trunk Database Programming Flowchart*


Enter Program Database feature code 9932
ENTER DATABASE OPTION
Press 3 or TRUNK menu button
ENTER TRUNK OPTION
Press 1 or INDIVIDUAL TRUNK menu button
Press 2 or TRUNK GROUP menu button
ENTER TRUNK EXTENSION
ENTER TRUNK GRP EXTENSION
SEE NEXT PAGE
Enter desired trunk extension number
INDIVIDUAL TRUNK OPTION
Press 1 or ANSWER SUPERVISION menu button
ANS SUPERVISION OPTION
Press 1 or POLARITY REVERSE menu button
Press 2 or VALID CALL menu button
Press 3 or VALID + POLARITY menu button
Press 2 or CALLER ID menu button
SET CALLER ID
Press 1 or ON menu button
Press 2 or OFF menu button
Press 3 or HYBRID BALANCE menu button
HYBRID BALANCE OPTION
Press 1 or NORMAL menu button
Press 2 or SHORT menu button
Press 4 or SIGNALING menu button
ENTER SIGNALING OPTION
Press 1 or DTMF menu button
Press 2 or PULSE menu button
Press 5 or TRUNK GROUP menu button
ENTER TRUNK GRP EXTENSION
Enter the trunk group number
Press 6 or TRUNK BUSY menu button
MARK TRUNK BUSY
Press 1 or ON menu button
Press 2 or OFF menu button
AT ANY LEVEL:
Press * or the Speaker button to cancel any unsaved changes and back up to exit programming.
Press # or ACCEPT to save changes and back up one display level.
INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:
YOUR INPUT
ENDPOINT DISPLAYS

Trunk Database Programming Flowchart (Continued)


CONTINUED FROM PREVIOUS PAGE
Enter the number of the trunk group to be programmed
TRUNK GROUP OPTION
Press 1 or ANS ACCESS DAY menu button
Press 2 or ANS ACCESS NIGHT menu button
Press 3 or RING-IN DAY menu button
Press 4 or RING-IN NIGHT menu button
ENTER ENDPOINT EXTENSION
Enter the desired extension number
(Extension number) YES/NO
Press 1 or YES menu button
Press 2 or NO menu button
Press 5 or TOLL RESTRICTION menu button
TOLL RESTRICTION OPTION
Press 1 or COS DAY menu button
Press 2 or COS NIGHT menu button
Press 3 or EXEMPT FROM ARS menu button
Press 4 or SUBJECT TO TOLL menu button
SET DAY/NIGHT COS XX
If necessary, select COS number to program by scrolling
Press 1 or ON menu button
Press 2 or OFF menu button
EXEMPT FROM ARS
Press 1 or YES menu button
Press 2 or NO menu button
SUBJECT TO TOLL
Press 1 or YES menu button
Press 2 or NO menu button
Press 6 or TRUNK LIST menu button
ENTER TRUNK EXTENSION
Enter the desired trunk number
(Extension number) YES/NO
Press 1 or YES menu button
Press 2 or NO menu button

Programming System Speed Dial Numbers

System Speed Dial numbers and names can be programmed by the installer or at any Administrator endpoint. The System Speed Dial numbers can contain up to 48 digits each and can include hookflashes and/or pauses for dialing a series of numbers. For example, the Speed Dial number can contain an SCC local number, a pause, an access code, and the phone number. For using PBX trunks, the other system's trunk access codes, followed by a pause, may be included in Speed Dial numbers. The lengths of the hookflash and the pause are determined by the programmable CO Hookflash and Pause Digit timers.

To program System Speed Dial numbers, use one of the following methods:

- Use the dialpad to manually dial the number. To backspace, press MUTE.
- Press REDIAL to enter the last number dialed or saved at the endpoint (up to 48 digits).
- Press one of the Speed Dial buttons on the Inter-Tel endpoint to enter the outside phone number (up to 16 digits) programmed under that button.

Speed dial names can contain up to 16 characters. To program Speed Dial names, dialpad buttons are used to enter the desired letters, numbers, and punctuation in English/Spanish, or Japanese (Katakana). When programming Speed Dial names, you can press MSG or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0–9, the pound (#) button is used for entering a hyphen (-), and the asterisk (*) button is used for entering a colon (:). For example, 1 * 00 would enter "1:00" in numeric mode.
- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter "JEAN." When adjoining characters are located under the same button, press FWD to advance to the next character. For example, 66 FWD 6667776 would enter "NORM." Refer to the following table to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.) The Japanese characters are included in your standard software license, and can be programmed as the Primary or Secondary Language.

Table 8: *Alphanumeric Data Entry*

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

To program or change System Speed Dial numbers and names:

NOTE	If you make a mistake, use the MUTE button to backspace. Or, press * or **CANCEL** at any time to cancel the operation (the name and number in memory remains unchanged and the display shows FEATURE CANCELED); then start over.

1. While on-hook, enter the Program System Speed Dial feature code (9801). Display endpoints show PROGRAM SYS SPD # (000-999).
2. Enter the Speed Dial location code (000-999). The display shows ENTER NAME: ***(current name)***. If you do not continue to the next step, the display times out after the Long Inter-digit timer expires and you must start over.
3. **To change or program the name:** Enter the desired name for the Speed Dial number using your dialpad as described on page 33, then press # or **ACCEPT**. Refer to the chart on the previous page. ***If you make a mistake,*** use the MUTE button to back up and erase existing characters or the **CLEAR** button to erase the whole entry.

   To erase the current name and leave it blank: Press **CLEAR** or press MUTE repeatedly until the name is erased. Then press # or **ACCEPT**.

   To leave the name the same: Press # or **ACCEPT**.
4. When the display shows ENTER NUMBER, enter the number (up to 48 digits) to be stored using the dialpad, one of the Speed Dial buttons, or the REDIAL button. ***If necessary,*** use the MUTE button to back up and erase existing numbers. (Display endpoints show the number as it is entered.) ***To include *, #, pause, or hookflash in the number,*** press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash (F), or four times for a pause (P). You cannot exceed 48 digits.
5. Press # or **ACCEPT** to save the number. You hear a single progress tone when the number is accepted. Your display shows SYS SPD BIN #XXX UPDATED.

To erase System Speed Dial names or numbers:

1. While on-hook, enter the Program System Speed Dial feature code (9801). Display endpoints show PROGRAM SYS SPD # (000–999).
2. Enter the Speed Dial location code (000–999). The display shows ENTER NAME: ***(current name)***.
3. You may erase the name and/or number:

   To erase the name: Press MUTE repeatedly until the name is erased or press **CLEAR**.

   To erase the number: Press # or **ACCEPT** to display the ENTER NUMBER prompt, then press MUTE repeatedly until the number is erased or press **CLEAR**.
4. Press # or **ACCEPT** to exit. You hear a single progress tone when accepted. Your display shows SYS SPD BIN #XXX UPDATED.

Programming and Using DSS Buttons

Direct Station Select (DSS) buttons (located on a Mini-DSS unit or on an Inter-Tel endpoint) provide one-button access to extension numbers. If the button is equipped with a lamp, you can visually monitor the status of the associated extension. DSS buttons are not available on single line endpoints.

NOTE	You can program a DSS button for an off-node device, but not for “wildcard” off-node extensions.

Together, the lamps in the buttons create a busy lamp field that indicates the status of the resource (e.g., endpoint, trunk, hunt group, or feature) assigned to the buttons. The table shown below explains what DSS lamps indicate about the associated resource.

Table 9: *DSS Button Indications*

IF THE LAMP IS . . .	THEN . . .
Solidly Lit	The associated resource is busy or all endpoints in the associated hunt group are unavailable (in Do-Not-Disturb, busy, or with hunt group remove enabled). Or, the associated feature is enabled.
Slow Flash	The associated resource is in Do-Not-Disturb.
Fast Flash	The associated resource has a call ringing in or a call is camped on to the hunt group. (This option is programmable. If DSS ring flash is disabled, a call ringing in to a endpoint shows a solidly lit lamp.)
Continuous Flutter	The associated resource is causing an ENDPOINT OFF-HOOK system alarm.

Managing System and Network Alarms

To allow one Administrator to monitor multiple nodes, the system provides both system alarms and network-wide alarms.

System Alarms

The system's Alarm Reporting feature detects equipment failures. If there is a system failure that affects service, a major alarm is displayed at all affected endpoints.

When a minor equipment failure occurs, a minor alarm is generated and appears on the primary Attendant's display and, if enabled, at Administrators' endpoints. If enabled in the Message Print programming, the alarm also appears in the error/message report.

Alarms 1–99 indicate problems that can be corrected without calling service personnel. Alarms 100–199 (telephone system) and 200–299 (voice processing system) require attention from service personnel. Note that when a Voice Mail alarm is in effect, the telephone system may be functioning properly, but the voice processing system may be inoperative.

Network Alarms

Each node has two flags which determine whether the node broadcasts or receives network-wide alarms.

- The **Send Network Alarms** flag determines whether a node will broadcast alarms that occur on that node to the rest of the network.
- The **Receive Network Alarms** flag determines whether the node will receive and display alarms sent by other nodes in the network.

To differentiate between network-wide and local alarms, network-wide alarms appear on Administrator endpoints preceded by "NET ALARM," and local system alarms are preceded with "SYS ALARM." Network-wide alarms will override system alarms on an Administrator's endpoint display.

On remote nodes, network-wide alarms will indicate the name of the node on which the alarm occurred. The node name is obtained from the username.

To respond to a minor alarm from any alarm display endpoint:

1. When a minor alarm indication appears, write down the alarm information.
2. While on-hook, clear the alarm by entering the Clear System Alarm feature code (9850) or the Clear Network Alarm feature code (9851). The display shows SYSTEM (or NETWORK) ALARM CLEARED.
3. Take the appropriate action as indicated in the table below.

Table 10: *Alarm Texts, Descriptions, and Actions*

ALARM TEXT	DESCRIPTION AND ACTION REQUIRED
SYS ALARM #10 xXXXX OFF HOOK	An endpoint has remained off-hook and inactive past the expiration of the Inactivity Alarm timer. The display and the SMDR indicate which endpoint is off-hook. The lamps in the button for that endpoint on the Speed Dial buttons of other endpoints flutter continuously. Locate the endpoint and replace the handset in the cradle. (Calls being transmitted over the secondary voice path are not affected or interrupted by an off-hook alarm condition.)
SYS ALARM #11 xXXXX EMERGENCY	A user has dialed the Emergency Call feature code (911) and the system has selected a trunk and dialed the programmed emergency number. No action required, clear the alarm. To facilitate emergency services reaching the party in need, determine who made the emergency call.
SYS ALARM #12 CHECK PRINTER	The printer is not functioning properly. Check the cable and the power cord connections and that the printer is supplied with paper and ribbon.
SYS ALARM #13 CHECK PRINTER	The printer is not functioning properly. Check the cable and the power cord connections and that the printer is supplied with paper and ribbon.
SYS ALARM #14 SET DATE/TIME	The system real-time clock has not been initialized or has been corrupted. Set the system time and date as described on page 12.
SYS ALARM #15 CALL TECHNICIAN	The real-time clock chip is not operating. Contact service personnel.
SYS ALARM #16 NO DELAYED MAJOR	The system was unable to perform a scheduled delayed major reset because the system was not idle. If this alarm recurs, contact service personnel.
SYS MGR LINK ERR <error string>	The certificate is not yet valid or the system is not connected to the appropriate System Manager server. Contact service personnel.
SYS ALARM #18 SYS MGR INV CERT	A corrupt certificate was uploaded or there was an error in writing the file. Contact service personnel.

Table 10: *Alarm Texts, Descriptions, and Actions (Continued)*

ALARM TEXT	DESCRIPTION AND ACTION REQUIRED (CONTINUED)
SYS ALARM #20 CHECK PRINTER	The printer is not functioning properly. Check that the cable and the power cord are connected, and that it has paper and toner.
SYS ALARM #21 V-MAIL 80% FULL	The external voice mail disk space is 80% of full. If it reaches 100%, Voice Mail cannot accept any messages until disk space is made available. Contact service personnel.
SYS ALARM #22 V-MAIL 100% FULL	100% of the external voice mail disk space is in use. Voice mail cannot accept any messages until disk space is made available. Contact service personnel.
SYS ALARM #23 SMDR 80% FULL	The SMDR disk space on the external voice processing system is 80% of full. If it reaches 100% before the SMDR information is cleared, no further SMDR recording will be possible. Contact service personnel.
SYS ALARM #24 SMDR 100% FULL	100% of the SMDR disk space on the external voice processing system is in use. No further SMDR recording is possible. Contact service personnel.
SYS ALARM #32 INSUF BAND	The IP Network does not have enough bandwidth to support the IP call that is currently connected to the extension. If this alarm is generated frequently, it could indicate a network problem that requires the attention of your network administrator. Notify your network administrator. The affected device is not behind a firewall or NAT.

To respond to a major alarm from any alarm display endpoint, take the following action:

ALARM TEXT	DESCRIPTION AND ACTION REQUIRED
#100–199 #200–224	These alarms indicate that an equipment failure has occurred that requires the attention of service personnel.
SYS ALARM #XXX	Contact service personnel.
CALL TECHNICIAN	Be prepared to provide all alarm information, as well as what was taking place when the alarm occurred.

Clearing Alarms

An Administrator can clear a network-wide alarm on the local node only or on every node in the network. To clear an alarm, you can use either the Administrator feature codes or the menu buttons on your endpoint.

To use the feature codes to clear alarms:

Enter the appropriate feature code to clear the alarm. The clear alarms feature codes are as follows:

- **Clear Network Alarm (9851):** This feature code clears network-wide alarms on every node in the network, but will not affect system alarms. The Clear Network Alarm feature code may be entered on any node in the network, but the Send Network Alarms flag must be set for you to clear alarms on other nodes in the network.
- **Clear System Alarm (9850):** This feature code clears all local and network-wide system alarm displays on your node.

After you enter the feature code, the display shows SYSTEM (or NETWORK) ALARM CLEARED, and the highest priority alarm is cleared. If another alarm is active, the display shows that alarm. Enter the feature code again to clear the next alarm in the queue (only one alarm is cleared at a time). When all alarms are cleared next highest priority alarm is displayed.

To use menu buttons to clear alarms:

- *EITHER*, Press CLEAR ALARM to clear the currently displayed alarm. The display shows SYSTEM (or NETWORK) ALARM CLEARED, and the next highest priority alarm is displayed. If there are no more alarms, the display shows the idle menu.
- *OR*, Press CLEAR ALL ALARMS to clear all alarms. The display shows ALL ALARMS CLEARED, and the idle menu is shown.

NOTE You can press IDLE MENU at any time to view the idle menu instead of the clear alarm menu.

Alarm Queue

The Alarm Queue feature prioritizes system and network alarms based on severity and allows System Administrators to view and handle critical alarms before addressing minor alarms. You can then clear the individual alarm, or clear all the alarms in the queue (up to 30). When clearing alarms individually, the alarms are displayed in order of severity. The Emergency Alarm (when an extension has dialed emergency services) is the only priority 1 alarm. Other prioritized alarms have a 2, 3, or 4 priority, based on the severity of the alarm.

Not all alarms have a number 1,2, 3, or 4 priority. The numbered priority scheme is limited to alarms that can cause a major or minor system reset. Those alarms in the Alarm Queue that have a numbered priority (1–4) are displayed before the alarms that do not receive a numbered priority. Alarms that do not have a numbered priority are prioritized in the queue by date and time.

When alarms are generated:

- The highest priority alarm is placed in the front of the queue, regardless of when lower priority alarms are generated. For example, if A114 (priority 3) and A116 (priority 4) are currently in the queue, but A119 (priority 2) is generated, A119 is placed first in the queue.
- Alarms with the same priority level are placed in the queue based on the time the alarm was generated. For example, if A010 (priority 3) is generated at 10:30 AM, and A012 (priority 3) is generated at 10:32 AM, A012 is placed in the queue after A010.
- If the queue contains 30 alarms, the oldest, lowest priority alarm is overwritten with the new alarm. For example, if the queue currently holds 30 alarms, 20 of which are priority 4, and a priority 3 alarm is generated, the oldest priority 4 alarm is overwritten.
- Repetitive alarms such as A125, are placed in the queue only once. If the alarm is regenerated, the alarm that is currently in the queue is overwritten with the new alarm

data (if applicable) and time. For example, A125 is overwritten each time it is regenerated, which is every 5 minutes. This prevents the queue from being filled with duplicate alarms.

The queue holds up to 30 alarms, with priority, 1 (high) to 4 (low), given to those listed in the following table.

Table 11: *Alarm Numbers and Priorities*

ALARM #	PRIORITY
A010	Low
A011	Critical
A012	Low
A013	Low
A014	Low
A015	Low
A016	Low
A017	Low
A018	Low
A020	Low
A021	Low
A022	Low
A023	Low
A024	Low
A025	Low
A026	Low
A031	Low
A032	Low
A100	Low
A101	Low
A102	Low
A103	Low
A104	Med
A105	Low
A106	Low
A107	Low

ALARM #	PRIORITY
A108	Low
A109	Med
A110	Med
A111	Med
A112	Med
A114	Med
A115	Med
A116	Low
A117	Low
A118	Low
A119	High
A120	Med
A121	High
A122	High
A123	High
A124	Med
A125	High
A126	Med
A127	Med
A128	Low
A200	Low
A201	Low
A202	Low
A203	High
A204	High

Enabling/Disabling the Internal Modem

Inter-Tel CS-5200/5400 internal modem performs multiple functions. When enabled, the modem is for Database Programming, Message Print, SMDR, and for uploading software licenses.

If disabled, the modem and extension is placed into DND. In DND, the modem rejects all calls and does not allow camp ons. Any outside calls that attempt to ring a disabled modem are automatically transferred to the Primary Attendant.

To enable/disable a modem:

1. While on-hook, enter the Modem Enable (9866) or Modem Disable (9867) feature code. The display shows ENABLE (DISABLE) MODEM EXT #.
2. Enter the extension of the modem to enable/disable it. The display shows MODEM ENABLED (or DISABLED).

   If an invalid modem extension is entered, the display shows INVALID MODEM EXTENSION.

Resetting the Internal Modem

CAUTION

Possible data corruption. Do not reset the modem if it is connected to a Database Programming session. If you do, the programming session is dropped, potentially corrupting the database. For this reason, Inter-Tel recommends that you assign the modem extension to a Speed Dial button.

The internal modem must be reset if it fails to answer an incoming call or is out of sync with an external modem.

To reset the internal modem:

NOTE During a reset, any call connected to the modem is dropped.

1. Enter the Modem Reset (9869) feature code. The display shows RESET MODEM EXT#.
2. Enter the modem extension number. The display shows MODEM RESET.

   If an invalid modem extension is entered, the display shows INVALID MODEM EXTENSION.

Using the Network Group Diagnostics Feature

The Network Group Diagnostics feature allows an Administrator to verify that Network Groups have been programmed correctly. When the Network Group Diagnostics feature code is entered, the platform initiates pings from each Inter-Tel IP device and determines if the other devices respond to the ping. If a device does not respond to the ping or if a firewall is detected, the system issues a Message Print message (see page 211).

NOTE Because this feature affects system performance, Inter-Tel recommends that you run the diagnostics program when the system is idle (i.e., after normal business hours).

The Network Group Diagnostics feature works on Inter-Tel proprietary IP devices for the local node only. It does not work across nodes.

To run the Network Group Diagnostics:

1. While on-hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.
2. Enter the Network Group Diagnostics feature code (9963 by default). The display shows NET GRP CHECK (YES = 1 NO = 2).
3. When prompted, press 1 or **ACCEPT** to start the diagnostics feature. The display shows NET GROUP DIAG IN PROGRESS.

When the diagnostics is complete, the endpoint displays one of the following messages:

- NET GROUP CHECK COMPLETED: Indicates that all IP devices within the Network Groups are capable of communicating via P2P audio.
- NET GROUP CHECK ERRORS FOUND: Indicates that either some of the IP devices are offline or there are NATs/firewalls located between the devices. Check Message Print to determine which errors occurred.

Seizing a Device

For troubleshooting purposes, the Seize Device feature code allows an Administrator to enable diagnostics mode and then seize a specific trunk or extension by entering the module, circuit, and device number.

The Seize Device is affected by trunk restriction. The Administrator's endpoint must have outgoing access permission for the trunk to seize it. Toll restriction is applied to any calls placed after the trunk is seized.

To seize a device:

1. While on-hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.
2. Press the Special button and enter the Seize Device feature code (9973). The display shows ENTER MODULE.
3. Enter the module number where the device to be seized is located (if you enter a single digit, press # after the digit to continue). (If you enter an invalid module number, the display shows INVALID MODULE NUMBER.) Do not enter the Unit number (0). The display shows ENTER PORT.
4. Enter the port (circuit) number of the device to be seized (if you enter a single digit, press # after the digit to continue). Valid numbers depend on the type of module. (If you enter an invalid module number, the display shows INVALID MODULE NUMBER.)

   If there is only one device on the selected port, the selected device is seized as if the user had directly entered the extension or trunk number.

   If there is more than one device on the selected port, the display shows ENTER DEVICE. Enter the number of the device to be seized. Valid numbers depend on the type of devices installed. (If you enter an invalid device number, the display shows INVALID DEVICE NUMBER.) When the device has been selected, it is seized as if the user had directly entered the extension or trunk access number.
5. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

Freezing/Unfreezing the System History

When certain system failures occur, service personnel might request a "system history freeze." This allows them access to the system database so that they can analyze system activity for the time period preceding the alarm.

To freeze or unfreeze system history:

NOTE Do not perform this procedure unless directed to do so by service personnel.

1. While on-hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.
2. Enter the Freeze System History feature code (9993) or Unfreeze System History feature code (9998). The display shows HISTORY FROZEN (or UNFROZEN). ***If you attempt changing the state of the system history to its current status,*** the display shows HISTORY ALREADY FROZEN (or UNFROZEN).
3. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

Freezing/Unfreezing the Network History

Administrators can freeze or unfreeze the fault history for any node in the network. Service personnel can then pull the information from each node for troubleshooting purposes. Nodes are assigned to freeze zones by the database programmer to allow selective freezes. You must know which zone to freeze/unfreeze and then enter the freeze feature code followed by the zone number.

A node can be in more than one freeze zone. If you freeze a zone that contains a node that is already frozen, the display will show "SOME NODES ALREADY FROZEN" and the node will remain frozen. If you unfreeze a zone with unfrozen nodes in it, the display shows "SOME NODES ALREADY UNFROZEN." To determine the individual freeze status of the nodes, check the message print output.

NOTE Do not perform this procedure unless directed to do so by service personnel.

To freeze or unfreeze network history:

1. While on-hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.
2. Enter the Network Freeze Zone System Histories feature code (9939) or Network Unfreeze Zone System Histories feature code (9989). Display shows SELECT FRZ ZONE (0–9) #.
3. Enter the number of the zone you want to freeze or unfreeze. The display shows FREEZE ZONE XX IS FROZEN (or UNFROZEN). ***If you attempt change the state of the system history to its current status,*** the display shows FREEZE ZONE XX ALREADY FROZEN (or UNFROZEN).
4. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

Voice Mail Administrator Procedures

If your endpoint has been programmed as the voice mail administrator, you can use special features that are not provided to other voice mailbox owners. The administrator mailbox has all the end-user mailbox features, plus the ability to do the following:

- Record a broadcast message
- Perform mailbox and group list maintenance
- Create and select custom audiotex recordings (voice mail company greetings, auto attendant recordings, call routing announcements, and hunt group overflow and announcement endpoint recordings)
- Import fax documents
- Customize or reinstate voice mail prompts

NOTE If ASR is enabled for your mailbox, you have the option of issuing a spoken command or pressing a dialpad button. See page 226 for ASR guidelines.

To begin using the voice mail administrator's mailbox you will need to first initialize the mailbox.

To initialize the voice mail administrator's mailbox:

1. Dial the voice mail access number.
2. Say "Login" or press ✳ to identify yourself as a subscriber.
3. Say or enter the voice mail administrator's mailbox number.
4. Enter your default password (mailbox number) and then press #.
5. *If you want a password*, enter a new password using digits 0–9 (up to 12 digits), and then press # when you are done. The messaging system plays back your password.

   If you do not want to use a password, just say "Skip" or press #.

NOTE To provide system security, all mailboxes and extension IDs should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. This is especially important for the voice mail administrator's mailbox, which allows programming access to other mailboxes.

6. Say "Accept" or press to accept the entry or say "Erase" or press to erase and re-enter your password. The system prompts you to record your directory name.
7. After the tone, record your first and last names.
8. When prompted, do one of the following:
   - Say "Accept" or press # again to accept the name.
   - Say "Replay" or press 1 to replay the name you just recorded.
   - Say "Append" or press 2 to add to your name.
   - Say "Re-record" or press 3 to erase and re-record your name.

Once you have initialized your mailbox, you can access it and the administrator's menu as indicted below.

To access the voice mail administrator's mailbox and menu:

1. Dial the voice mail access number.
2. Say "Login" or press * to identify yourself as a subscriber.
3. Say or enter the voice mail administrator's mailbox number.
4. Enter the password and then press #.
5. Say "Nine" or press 9 to reach the voice mail administrator menu. (There is no prompt for entering the 9.)

Broadcasting Messages

You have the ability to make a single recorded message and send it to all Standard and Receive-Only mailboxes. (Extension IDs do not receive Broadcast Messages.)

To record a broadcast message:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Broadcast Message" or press 1 to send a broadcast message.
3. Record the message.

   If you exceed the maximum allotted time for message length, a prompt will notify you and allow you to re-record the message or send it.

   If voice mail is full, a message will notify you that it cannot accept the message. Hang up and try again later.
4. When you have completed the message, press # for the following options:
   - Say "Replay" or press 1 to replay the message.
   - Say "Append" or press 2 to add to the message.
   - Say "Erase" or press 3 *to erase and re-record the message.*
   - Say "Accept" or press # to accept the message.

NOTE	You must use the Accept option for the message to be sent. When you hang up, the message is canceled.

Maintaining Mailboxes and Group Lists

Using the voice mail administrator's mailbox, you may provide basic voice mailbox and group list maintenance. You do not need to know the password of a particular mailbox to perform maintenance on it.

Mailbox and group list maintenance includes the ability to:

- Record the name of a standard mailbox user, extension ID user, or group list
- Record a primary and alternate mailbox greeting
- Set additional personal options for a mailbox

NOTES	To provide system security, ***all*** mailboxes and extension IDs should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. This is especially important for the voice mail administrator's mailbox, which allows programming access to other mailboxes

Mailbox and Extension ID Personal Options

Voice mailboxes contain personal options to allow the user to customize messaging functions. However, before you can change personal mailbox options, the mailbox must be initialized.

For details, refer to the instructions in the applicable Inter-Tel endpoint User Guide. Each subscriber's mailbox has the following personal options:

- **Greetings:** A primary or alternate greeting is played when callers reach a user's mailbox. You can change a primary greeting at any time to reflect a change in status and/or record and enable an alternate greeting. If you and the user elect not to record a personal greeting, the default system greeting is used.

  NOTE The system has a database option called "Play Recording Instructions" that affects mailbox greetings. If this option is enabled, the "leave a message after the beep" system prompt plays following the primary or alternate greeting. If disabled, no prompt is played and the beep preceding recording occurs immediately after the primary or alternate greeting ends. The Play Recording Instructions flag is enabled by default.

- **Directory Name:** A recorded name is used to identify each mailbox in the directory and to verify the mailbox number when messages are addressed by non-subscribers and other subscribers. Although the name is recorded when a user first sets up the mailbox, you can change it at any time.
- **Password:** Passwords prevent unauthorized access to a mailbox. Although the mailbox user creates a personal password when they first set up the mailbox, you can change it at any time.

  NOTE To provide system security, ***all*** mailboxes and extension IDs should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. You should recommend to all users that they set a password.

- **Message Envelope Options:** Each message is preceded by an "envelope" that can include the time and date the message was left, the source of the message, and additional information that is associated with the media type. Voice mail messages have a length envelope option, e-mail messages have a subject option, and faxes have a pages option. By default, all envelope options are enabled for each type of message.
- **Remote Messaging:** Remote Messaging is available for voice mail messages only and is enabled in DB Studio on a per-mailbox basis. Using remote messaging, you can program voice mail to call the mailbox owner when he or she receives new messages. Using a "cascade" (a series of up to nine telephone numbers), voice mail calls each number until it successfully connects to a device (e.g., pager, answering machine, etc.). If for some reason voice mail is not able to use remote notification, the mailbox will receive a message stating that notification could not be completed. For more information about Remote Messaging options, see the appropriate Inter-Tel 5000 endpoint user guide.
- **Fax Destination Number:** If an endpoint is programmed to receive incoming faxes, you can program the fax destination number that will receive the faxes that are sent to the mailbox.
- **Message Search Order:** This option allows the user to determine how to retrieve saved or new messages based on the date and time they were received. The message search order can be the earliest-received messages first (First In/First Out), or the latest-received messages first (Last In/First Out).
- **Transfer Method:** The transfer method determines how an incoming call from any transfer to the mailbox or Extension ID that EM may execute (for example, voice mail reply, Call Routing Application, Automated Attendant, operator transfer, etc.) is han-

dled. Transfer methods include unannounced, announce-only, and screened. When a voice mailbox is programmed for screened calls, the user can:

— Say “Accept” or press # to accept the call.

— Say “Replay” or press 1 to replay the announcement.

— Say “Voice Mail” or press 2 to send the call to voice mail.

— Say “Forward” or press 3 and then enter the extension number to forward the call to another extension.

— Say “Refuse” or press * to refuse the call.

To record/change a personal greeting:

1. Access the voice mail administrator’s mailbox and menu (see page 44).
2. Say “Mailbox Maintenance” or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options Menu.
4. Say “Greeting” or press 1 to record/change the personal greeting. You have the following options:
   - Say “Primary” or press 1 to record and/or enable the primary greeting.
   - Say “Alternate” or press 2 to record and/or enable the alternate greeting.
   - Say “System” or press 3 to enable the system default mailbox greeting.
5. *If you selected the system greeting option,* continue to the next step.

   If you selected the primary or alternate greeting option, record the greeting when prompted, then press #.

   If you already have a primary or alternate greeting, it is played when you select primary or alternate.

   You can then do one of the following:

   - Say “Accept” or press # to accept the greeting.
   - Say “Replay” or press 1 to replay the greeting.
   - Say “Append” or press 2 to add to the greeting. Press # when you are done.
   - Say “Erase” or press 3 to erase and re-record the greeting.
   - Say “Cancel” or press * to exit without changing the greeting.
6. Hang up or press * to return to the previous menu.

To change the recorded directory name for a mailbox:

1. Access the voice mail administrator’s mailbox and menu (see page 44).
2. Say “Mailbox Maintenance” or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options Menu.
4. Say “Name” or press 2. The recorded name is played. You have the following options:
   - Say “Accept” or press # to accept the recorded name.
   - Say “Replay” or press 1 to replay the recorded name.
   - Say “Append” or press 2 to add to the name.
   - Say “Erase” or press 3 to erase and re-record the name.
5. Hang up or press * to return to the previous menu.

To change a password:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Mailbox Maintenance" or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options Menu.
4. Say "Password" or press 3.
5. *If you want a password,* enter a new password using digits 0–9 (up to 12 digits) and press # when you are done.Voice mail plays back the password.

   If you do not want to use a password, say "Skip" or press #. Voice mail announces that you have chosen not to have a password.
6. Say "Accept" or press # to accept the password as entered, or say "Re-enter" or press 3 to erase and re-enter the password.
7. Hang up or press * to return to the previous menu.

To change and save a message envelope:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Mailbox Maintenance" or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options Menu.
4. Say "Envelope" or press 4 to select the Message Envelope Options Menu.
5. Select the media type you would like to change:
   - Say "Voice Mail" or press. 1.
   - Say "E-mail or press 2.
   - Say "Facsimile" or press 3.
6. You can then do any of the following:
   - Say "Time/Date" or press 1 to enable or disable the time/date option.
   - Say "Source" or press 2 to enable or disable the message source option.
   - *For voice mail,* say "Length" or press 3 to enable or disable the message length option.
   - *For e-mail,* say "Subject" or press 3 to enable or disable the subject option.
   - *For faxes,* say "Pages" or press 3 to enable or disable the pages option.
   - Say "All Options" or press 4 to enable all options and return to the Personal Options Menu.
   - Say "None" or press 5 to disable the entire envelope and return to the Personal Options Menu.

   NOTE This option is not available for fax messages.
7. Hang up or press * to return to the previous menu.

To set up remote messaging (if enabled in DB Studio):

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Mailbox Maintenance" or press **2** to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options menu.
4. Say "Remote" or press **5**. You have the following options:
   - Say "Primary" or press **1** to set up a primary cascade.
   - Say "Alternate" or press **2** to set up an alternate cascade.
5. Say "Level" or press **1** and say or enter the number (1–9) of the level you want to program. You then have the following options:
   - To set up or change an extension, outside, or pager number:
     – Say "Number" or press **2**.
     – *EITHER,* say "Internal" or press **1** for an extension number.
     OR, say "Outside" or press **2** for an outside number.
     – Say or enter the number.
   - To set up or change pager notification:
     – Say "Pager" or press **1**.
     – Say "Personal" or press **2**.

   Say "Change" or press **1** to enable or disable the number.
6. Say "Time" or press **2**. Then say or enter the time you want the message notification to start and stop. Enter or say the times with two digits for the hour and two digits for the minutes (e.g., 0900 = 9:00). If entering the time in 12-hour format:
   - Say "AM" or press **1** for a.m.
   - Say "PM" or press **2** for p.m.

   NOTE For 24-hour notification, set the starting and ending times to be the same.
7. Say "Days" or press **3**. Then select one of the following:
   - Say "Weekdays" or press **1** for Monday-Friday.
   - Say "Days" or press **2** for all days.
   - Say "Day" or press **3** to select individual days. You are prompted to say or press digits 1–7 which correspond to the days Sunday through Saturday.
8. Say "Category" or press **4**. You have the following options:
   - Say "All Messages" or press **1** for all messages.
   - Say "Priority" or press **2** for priority messages only.
9. Hang up or press **#** to save the settings and exit.

To change the transfer method (if enabled in DB Studio):

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Mailbox Maintenance" or press **2** to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options menu.

4. Say “More” or press 9 for More Options.
5. Say “Transfer” or press 5. The system tells you what the current transfer method is. You can then select the desired transfer method, as follows:
   - Say “Unannounced” or press 1 to select unannounced transfers.
   - Say “Screened” or press 2 to select screened transfers.
   - Say “Announce” or press 3 to select announce only transfers.
   - Say “Cancel” or press * to return to the Personal Options Menu without making changes.
6. Hang up or press * to return to the previous menu.

To change a fax destination number:

1. Access the voice mail administrator’s mailbox and menu (see page 44).
2. Say “Mailbox Maintenance” or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options menu.
4. Say “More” or press 9 for More Options.
5. Say “Number” or press 1.
6. Say or enter the number of the fax destination.
7. *EITHER*, say “Accept” or press # when you are done.

   OR, say “Re-enter” and press 3 to erase and re-enter the number.
8. Hang up or press * to return to the previous menu.

To change the message search order:

1. Access the voice mail administrator’s mailbox and menu (see page 44).
2. Say “Mailbox Maintenance” or press 2 to access the Mailbox/Group List Maintenance option.
3. Say or enter the mailbox or extension ID to be accessed. You hear the Personal Options menu.
4. Say “More” or press 9 for More Options.
5. Say “Order” or press 2 for the Message Search Order.
6. Select one of the following options:
   - Say “New” or press 1 to change the search order for new messages.
   - Say “Saved” or press 2 to change the search order for saved messages.
7. Your current message search order is played. Select one of the following options:
   - Say “First In” or press 1 to retrieve the earliest-received messages first (First In/ First Out).
   - Say “Last In” or press 2 to retrieve the latest-received messages first (Last In/ First Out).
   - Say “Cancel” or press * to return to the Personal Options Menu without making changes.
8. Hang up or press * to return to the previous menu.

Group Lists

A group list is a collection of mailboxes that is programmed in DB Studio. Subscribers can use group lists to send messages to several mailboxes simultaneously. With the voice mail administrator mailbox, you can record a name for the group lists in the system. You will need to obtain the number assigned to each group list before you can record a group list name. The group list name is used for verification purposes only.

To record a group list name:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Mailbox Maintenance" or press **2** to access the Mailbox/Group List Maintenance option.
3. Say or enter the group list number to be accessed. The current name is played.
4. After the tone, record the name for the selected list, and then press **#**. You have the following options:
   - Say "Accept" or press **#** to accept the name.
   - Say "Replay" or press **1** to replay the name you just recorded.
   - Say "Erase" or press **3** to erase and re-record the name.
5. Hang up or press ***** to return to the previous menu.

Importing Fax Documents

If your voice mail system has fax enabled, you can use the voice mail administrator's mailbox to import fax documents. Imported documents can then be requested by callers who use a Call Routing Announcement application programmed to provide the Fax-On-Demand service.

NOTE It is recommended that you re-record system prompt number 672 (refer to page 308) to let callers requesting faxes know what the valid time window is for fax requests, and when they should expect the fax to be delivered if their request falls outside of the valid time window.

To import a fax document:

1. Using a fax machine, after you obtain dial tone, dial the voice mail access number.
2. Access the voice mail administrator's mailbox and menu (refer to page 44).
3. Say "Import Fax" or press **4** to select the Import Fax option. (If the system does not have a fax license, this option is not accepted.) The system may prompt you with one of the following messages. *If not*, continue to the next step.

   All system fax ports are busy: Hang up and try again later.

   The system already contains the maximum number of fax documents allowed: Until one or more fax documents are deleted from the system, there is no room for additional documents.

   The system does not have enough disk space to import any more documents: Until one or more fax documents are deleted from the system, there is no room for additional documents.

   The system currently is at or above the Maximum Fax Library Size: Until one or more fax documents are deleted from the system, there is no room for additional documents. By default, the Maximum Fax Library Size field is set to 0 in DB Studio.

4. When prompted, say or enter the fax document number. One of the following occurs when you enter the number:

   If the document number does not already exist, the system asks you to verify the number. Say "Yes" or press # if the number is correct and go to the next step. Or, say "Re-enter" or press 3 if you want to re-renter the number.

   If the document number already exists, the system asks if you want to replace it. Say "Yes" or press # if you want to replace the document and go to the next step. Or, say "Re-enter" or press 3 if you want to re-renter the number.

   If you did not enter a valid number, you are prompted to enter a new number.

5. When prompted, press the **Start** button on the fax machine. One of the following may occur:

   If the system cannot communicate with your fax machine, check that it is working properly and say "Continue" or press # to try again. Return to step 4.

   If the system runs out of disk space while importing the document or if the document will cause the system to exceed the Maximum Fax Library Size, you cannot import this document until one or more fax documents have been deleted from the system to create disk space. Say "Cancel" or press # to return to step 4.

6. When the fax transmission is complete, the system tells you that the document was received. Say "Continue" or press # to continue importing documents, or hang up.

Creating Audiotex Recordings

Using voice mail, you can create and select up to 500 custom audiotex recordings including voice mail company greetings, auto attendant greetings, call routing announcements, and hunt group announcement/overflow recordings. Depending on how your system is programmed and how the recordings will be used, you may need to record an ASR and a non-ASR version when you customize a recording.

Each recording has a designated number. Numbers are then assigned to specific applications using the voice mail administrator's mailbox or through DB Studio. Any recording number (001–500) can be assigned to any voice processing system application. By default, recording #001 is the default system voice mail main greeting, and recording #002 is the Automated Attendant main greeting. A single recording may be used for multiple applications. The default audiotex recordings can be changed, but if the voice processing system database is defaulted, the system recordings will be restored.

After making the required recordings, you must determine which recordings will play during the telephone system's day and night modes of operation. Programming day and night modes for audiotex recordings can be done from either the voice mail administrator's mailbox or through DB Studio.

When customizing audiotex recordings, you must enter a valid three-digit recording number (or a single digit followed by # for recordings 1–9). If a valid number has been entered and a previous recording exists, the voice processing system will play it. (This includes the two standard default greetings.) When no recording is associated with a recording number, you will be prompted to create a recording.

Once the recording has been made, the new recording replaces any previous recording. The only recordings that can be retrieved are system default recordings #001 and #002. They can be retrieved by defaulting the voice processing system database. The maximum recording time for each custom audiotex recording is determined in DB Studio.

In DB Studio, link several greetings together for one application and/or use the special UCD/ACD hunt group characters that tell the caller how many calls are ahead and how long the wait will be. If you use the voice mail administrator's mailbox to record or assign a recording to an

application with a list of several recordings, your input will change only the first entry in the list. You cannot change the other entries using the voice mail administrator's mailbox.

NOTE The custom audiotex program planning sheet is designed to help you plan and record custom recordings (refer to page 55).

To make or change a custom audiotex recording:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Options" or press **3** for recording options.
3. Say "Custom" or press **1** to make a recording.
4. When prompted, say or enter the desired recording number (001-500).
5. *If no recording exists*, go to the next step.

   If a standard (non-ASR) recording already exists, it is played. You have the following options:

   - Say "Standard" or press **1** to record a standard (non-ASR) greeting.
   - Say "Copy" or press **2** to copy the standard (non-ASR) greeting.
   - Say "Speech Recognition" or press **3** to record an ASR greeting.
6. When prompted, record the greeting or message, and then press **#**. While you are recording, you can:
   - Press **2** to pause while recording. (Say "Continue" or press **#** to continue.)
   - Press **3** to erase and re-record your message.

   If you exceed the maximum allotted time for recording length, a prompt will notify you and allow you to re-record or save the recording.

   If the voice processing system PC disk is full, a prompt will notify you that it cannot accept the recording. Hang up and try again later.
7. When finished recording, select one of the following options:
   - Say "Replay" or press **1** to replay the message.
   - Say "Append" or press **2** to add to the message.
   - Say "Erase" or press **3** to erase and re-record the message.
   - Say "Accept" or press **#** to accept.
8. To create an ASR recording, choose one of the following options:
   - Say "Copy" or press **2** to copy the standard (non-ASR) greeting.
   - Say "Speech Recognition" or press **3** to record an ASR greeting.
9. When finished, select one of the following options:
   - Say "Replay" or press **1** to replay the message.
   - Say "Append" or press **2** to add to the message.
   - Say "Erase" or press **3** to erase and re-record the message.
   - Say "Accept" or press **#** to accept.

To assign custom audiotex recordings to specific application extension numbers:

1. Access the voice mail administrator's mailbox and menu (see page 44).
2. Say "Options" or press **3** for recording options.
3. Say "Select" or press **2** to select a recording.
4. When prompted, say or enter the extension number of the application to be programmed. (For example, if users dial 2000 to reach voice mail, enter 2000 to assign the voice mail greeting.)

5. Select the mode for the recording:
   - Say “Day” or press 1 for day mode.
   - Say “Night” or press 2 for night mode.
   - Say “Cancel” or press * to return to the previous step.
6. Say or enter the desired recording number (001-500). If a recording already exists, it is played. You have the following options:
   - Say “Yes” or press # to accept the recording.
   - Say “No” or press * to go back to step 4

   NOTE If no recording exists, the system informs you, but assigns the recording number to the application. See page 52 for instructions on how to make a custom recording.
7. Hang up or press * to return to the previous menu.

Recording Custom Voice Mail Prompts

The voice mail prompts consist of two sets of prerecorded options and instructions. One set of prompts is for applications and mailboxes that have Automatic Speech Recognition (ASR) enabled. The other set is for applications and mailboxes that do not use ASR. The prompts that use ASR give the caller the option to issue a spoken command or press a dialpad digit to complete a task. The prompts that do not use ASR prompt the caller to press a dialpad digit only.

Most of the prerecorded voice mail prompts can be customized, using the voice mail administrator’s mailbox. For prompts that cannot be replaced, you will hear a message informing you of the status. To keep the system prompts consistent, when you customize the non-ASR version of a prompt, you should customize the ASR version also, if one exists.

If the Multilingual feature is enabled, then you can change either the Primary or Secondary Language prompts. To change primary language prompts, the endpoint must be in the primary language mode, likewise for secondary language prompts.

A list of all US English prerecorded prompts is provided, beginning on page 257.

NOTES
- If you change the text of the prompts, keep the content similar to the default text. Otherwise, the prompts will not make sense to the listeners when played by voice mail.
- You must record custom recordings using the administrator endpoint’s handset. EM v1.0 does not support importing.wav files to use as custom recordings.

To record custom system prompts (or restore system prompts):

1. Access the voice mail administrator’s mailbox and menu (see page 44).
2. Say “Replacement” or press 6 to select the System Prompt Replacement option.
3. Say or enter the desired prompt number (001-907).

   If the number is not valid, you hear an error message and must choose another prompt number.
4. *If the prompt is available in standard format only,* go to the next step.

   If the prompt is available in two formats, select one of the following:
   - Say “Standard” or press 1 to record a standard (non-ASR) prompt.
   - Say “Speech Recognition” or press 3 to record an ASR prompt.

5. The current prompt is played. You have the following options:
   - *S*ay “Replay” or press 1 to replay the prompt.
   - *S*ay “Replace” or press 3 to replace the system prompt with a custom prompt. Record the prompt and then press #.
   - *S*ay “System” or press 9 to reinstate the system prompt.
   - *Say “Cancel” or* press * to leave the prompt unchanged.

   If the voice processing system PC disk is full, a prompt will notify you that it cannot accept the recording. Hang up and try again later.

   If the newly created prompt is to be available in two formats, repeat step 5 to record the other format.

6. When finished recording, you have the following options:
   - Say “Replay” or press 1 to replay the recording.
   - Say “Append” or press 2 to add to the message.
   - Say “Erase” or press 3 to erase and re-record the message.
   - Say “Accept” or press # to accept.

Administrator Programming Planning Sheets

The following program planning sheets are designed to help you plan your site's system and voice mail programming.

Custom Audiotex Recordings

If you customize Audiotex recordings (see page 51 for instructions), use the table below to make note of the text. Depending on which voice processing system your site uses, how your system is programmed, and how the recordings are used, an ASR version, as well as a non-ASR version, may be needed.

RECORDING #	TEXT	WHERE USED (EXT #)
Example	Thank you for calling XYZ Company. All of our representatives are busy right now. Please hold.	Ext.2011 (Hunt Group Overflow Station)

Endpoint Programming

Administrator Database Programming Password: _____

Endpoint Information

For each station to be programmed, record the following information.

Endpoint Extension #:	
Administrator endpoint?	Yes *or* No
Attendant endpoint?	Yes *or* No
House Phone?	Yes *or* No
This endpoint's attendant:	
Username:	
Toll restriction classes of service:	

Do-Not-Disturb Messages

DEFAULT DND MESSAGE	PRIMARY LANGUAGE DND MESSAGE	SECONDARY LANGUAGE DND MESSAGE
MESSAGE 01 (DO-NOT-DISTURB)		
MESSAGE 02 (LEAVE A MESSAGE)		
MESSAGE 03 (IN MEETING UNTIL)		
MESSAGE 04 (IN MEETING)		
MESSAGE 05 (ON VACATION/ HOLIDAY 'TIL)		
MESSAGE 06 (ON VACATION HOLIDAY)		
MESSAGE 07 (CALL ME AT)		
MESSAGE 08 (AT THE DOCTOR)		
MESSAGE 09 (ON A TRIP)		
MESSAGE 10 (ON BREAK)		
MESSAGE 11 (OUT OF TOWN 'TIL)		
MESSAGE 12 (OUT OF OFFICE)		
MESSAGE 13 (OUT UNTIL)		
MESSAGE 14 (WITH A CLIENT)		
MESSAGE 15 (WITH A GUEST)		
MESSAGE 16 (UNAVAILABLE)		
MESSAGE 17 (IN CONFERENCE)		
MESSAGE 18 (AWAY FROM DESK)		
MESSAGE 19 (GONE HOME)		
MESSAGE 20 (OUT TO LUNCH)		

Reminder Messages

DEFAULT REMINDER MESSAGE	PRIMARY LANGUAGE REMINDER MESSAGE	SECONDARY LANGUAGE REMINDER MESSAGE
MESSAGE 01 (MEETING):		
MESSAGE 02 (STAFF MEETING):		
MESSAGE 03 (SALES MEETING):		
MESSAGE 04 (CANCEL MEETING):		
MESSAGE 05 (APPOINTMENT):		
MESSAGE 06 (PLACE CALL):		
MESSAGE 07 (CALL CLIENT):		
MESSAGE 08 (CALL CUSTOMER):		
MESSAGE 09 (CALL HOME):		
MESSAGE 10 (CALL CORPORATE):		
MESSAGE 11 (CALL ENGINEERING):		
MESSAGE 12 (CALL MARKETING):		
MESSAGE 13 (CALL ACCOUNTING):		
MESSAGE 14 (CANCEL DND):		
MESSAGE 15 (CANCEL CALL FWD):		
MESSAGE 16 (TAKE MEDICATION):		
MESSAGE 17 (MAKE RESERVATION):		
MESSAGE 18 (REVIEW SCHEDULE):		
MESSAGE 19 (LUNCH):		
MESSAGE 20 (REMINDER):		

Changing Station Extension Numbers

OLD EXTENSION NUMBER	NEW EXTENSION NUMBER

Swapping Stations

EXTENSION NUMBER	SWAPPED WITH EXTENSION

Individual Trunk Programming

Record the following information for each trunk to be programmed.

Answer Supervision Type:	Polarity Reversal or Valid Call *or* Valid Call with Polarity Reversal
Caller ID?	Yes *or* No
Hybrid Balance:	Normal *or* Short
Signaling:	DTMF *or* Dial Pulse
Trunk Group Number:	
Username:	

Trunk Group Programming

Record the following information for each trunk group to be programmed.

Endpoints with Day Answer Access:	
Endpoints with Night Answer Access:	
Endpoints with Day Ring In:	
Endpoints with Night Ring In:	
Toll Restriction Classes of Service:	
Trunks in Trunk Groups:	

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Introduction

The Inter-Tel CS-5200/5400 platform can be licensed and programmed to support a variety of multi-protocol, IP, and SIP endpoints and other system-enhancing hardware. The platform supports communication needs from individual workstations to single-site or network-wide Hunt Group arrangements.

Types of hardware available include basic “hard” IP endpoints that typically support workers in an office environment. Some endpoints are multi-protocol—that is, they operate in either IP or SIP mode. Some operate in IP mode only and others operate in SIP mode only. Other options include wireless IP endpoints, a “soft” phone that operates on a Personal Digital Assistant (PDA), and Single-Line Adapters that support standard single line endpoints.

For Attendant-like capability, the system supports a 16-extension direct station select (DSS) unit that attaches to one of Inter-Tel’s Six-Line Display IP endpoints. To enable IP communication through the public telephone network, the Inter-Tel CS-5200/5400 also supports gateway hardware.

Supported Endpoints

To allow system flexibility and cost efficiency, a variety of Inter-Tel and industry-standard endpoints can be used on the Inter-Tel CS-5200/5400, including the following devices:

- Hard Multi-Protocol Endpoints (Operate in ITP or SIP mode)
  - Model 8600
  - Model 8620
  - Model 8622
  - Model 8662
  - Model 8690
- Hard IP Endpoints
  - Model 8664 (wireless)
  - Model 8665 (wireless)
  - Model 8660
  - IP PhonePlus
  - IP Single-Line Adapter (IP SLA)
- Model 8601 SoftPhone for Pocket PC (operates in SIP mode only)
- Model 8416 Mini-Direct Station Select (DSS) Unit
- Single Line Endpoints
- Gateways
  - Media Gateway Control Protocol (MGCP) Gateways
  - SIP Gateways

Hard Multi-Protocol Endpoints

Model 8600

The Model 8600 is a multi-protocol endpoint that has no display and a single Ethernet port. Although the Model 8600 has a speaker, it does not have an external microphone. In addition the Model 8600 has one jack that is shared for the headset and handset. This endpoint has none programmable buttons and two fixed buttons. This endpoint operates in ITP or SIP mode (see page 79).

Model 8620/8622

The Model 8620 and 8622 are multi-protocol endpoints and have two-line LCDs. Both endpoints have 25 programmable buttons and two fixed buttons. Both endpoints also have dedicated headset and handset jacks. The endpoints both have a speaker and a microphone for full speakerphone operation. The only difference between the two endpoint is that the Model 8620 has one Ethernet port and the Model 8622 has two. This endpoint operates in ITP or SIP mode (see page 79).

Model 8662

The Model 8662 endpoint is a multi-protocol endpoint that has a six-line display. This endpoint has 25 programmable buttons and two fixed buttons. This endpoint also has eight menu buttons used to access additional features from a menu shown on the display. The Model 8662 has dedicated headset and handset jacks, a speaker and a microphone, and two Ethernet ports. This endpoint operates in ITP or SIP mode (see page 79).

Model 8690

The Model 8690 is an advanced IP endpoint that has an LCD touch screen that displays a telephone-type interface. A stylus pen provides access to elements on the interface, which include a dialpad, feature buttons, menu buttons and navigation buttons. The Model 8690 can operate in Session Initiation Protocol (SIP) mode or Inter-Tel Protocol (ITP) mode (see page 79). This endpoint uses a customized version of Microsoft® Windows CE.NET V4.2, and includes ports and connectors for optional hardware and memory cards.

For more information about this unique IP endpoint, consult the appropriate documentation listed below:

- **For supported features and end-user instructions:** *Model 8690 User Guide–Inter-Tel Protocol Mode* (part number 550.8116) or *Model 8690 User Guide–Session Initiation Protocol Mode* (part number 550.8025)
- **For general administrator information:** *Model 8690 Administrator Guide* (part number 550.8120)
- **For installation and maintenance information:** *IP Devices Installation Manual* (part number 835.2195)

Hard IP Endpoints

Models 8664 and 8665

The Model 8664 and 8665 endpoints are wireless, handheld portable endpoints. These endpoints operate like a Model 8660 IP endpoint and support Inter-Tel Protocol (IPT) mode. For details about these endpoints, refer to the *NetLink SVP Server and Model 8664/8665 Installation Manual* (part no. 935.4521).

Model 8660

The Model 8660 IP endpoint operates in ITP mode and supports both 10Base-T and 100Base-TX interfaces. The endpoint has a six-line display with menu buttons, speaker and microphone, programmable and fixed buttons, and dedicated headset and handset jacks. This endpoint operates in ITP mode.

IP PhonePlus

The IP PhonePlus operates in ITP mode. This endpoint has a six-line display with menu buttons, speaker and microphone, and programmable and fixed buttons. It has one jack that is shared by the headset and handset.

IP Single-Line Adapter (SLA)

The IP SLA provides an interface between the standard single line endpoint and a 10Base-T network. It allows you to make phone calls through the IP network. The IP SLA has an Ethernet IEEE 802.3 10Mbps UTP interface. The IP SLA uses flash memory and its software can be updated over the LAN.

Model 8601 SoftPhone for Pocket PC

The Model 8601 is a software-based SIP softphone that runs on selected Pocket PC 2002 (or later) Personal Digital Assistant (PDA) platforms. This endpoint operates in SIP mode only. For a list of supported PDAs and information about installation and programming the Model 8601, refer to the *Model 8601 SoftPhone for Pocket PC Installation Manual* (part no 835.2736).

Model 8614 Mini-Direct Station Select Unit

The Mini-DSS Unit provides one-button access to 16 extension numbers and/or feature buttons or resources. The Mini-DSS attaches to a Model 8660 endpoint, but to no other IP endpoints.

Single Line Endpoints

Industry-standard, single line endpoints can be installed on the system and/or used as an off-premises extension (OPX). An on-premises single line endpoint can be an AC-ringing single line endpoint, a playback device, and other single line device.

Single line DTMF endpoint users gain access to the features by hookflashing (pressing and releasing the hookswitch quickly) and entering feature codes.

Off Premises Extensions (OPX)

Off premises extensions are remote single line DTMF endpoints connected to the Inter-Tel system through telephone company OPX circuits (or customer-provided circuits).

Off-premises endpoint users gain access to the features by hookflashing (pressing and releasing the hookswitch quickly) and entering feature codes.

Some telephone company OPX networks do not recognize certain single line endpoint ring cadences used in the system. This incompatibility results in an inability to provide certain ring signals to OPX endpoints. Because of this, the system is equipped with a endpoint option (Extended Ring Cadences) which allows the ring cadences be altered for individual single line circuits.

Table 12 describes the difference between standard and extended ring cadences for the various types of single line devices used on Inter-Tel systems in the United States.

Table 12. *Off Premises Extension Ringing Cadences*

SINGLE LINE DEVICE	CADENCE TYPE	DESCRIPTION
T1 OPX	Standard IC Ring	This is a repeating 2-second cadence that rings twice. Each ring lasts 200 ms and is separated from the next ring by 400 ms of silence. The remaining 1.2 seconds is silent.
	Extended IC Ring	This is a repeating 6-second cadence that rings twice. Each ring lasts 800 ms and is separated from the next ring by 400 ms of silence. The remaining 4 seconds is silent
	Standard CO Ring	This is a repeating 6-second cadence that rings once for 2 seconds followed by 4 seconds of silence.
	Extended CO Ring	Same as Standard CO Ring cadence.

Gateways

AudioCodes MP-104 MGCP Gateway

The system also supports IP-based solutions for providing local Public Switched Telephone Network (PSTN) connectivity using a third-party Media Gateway Control Protocol (MGCP) device. For information about currently supported MGCP devices, contact your local authorized Inter-Tel dealer..

CAUTION

If an IP or SIP device user dials 911 from a remote location and an MGCP gateway is not present and configured properly, the call will be placed from where the system is located rather than from where the user is located. Because 911 services use Caller ID to help locate the caller, emergency service could be misdirected or delayed. Also, the 911 service contacted may be local to the system, but not to the IP or SIP device. All IP and SIP device users should be alerted to this situation and instructed to use a local telephone line for placing emergency calls if an MGCP gateway is not present and/or functioning properly. Also note that IP and SIP devices will not function in the event of a power failure at either the local site or the system location. Inter-Tel will not be held responsible for any problems resulting from an unavailable line that is connected to the MGCP gateway. Inter-Tel also recommends that users regularly test the MGCP gateway for dial tone.

AudioCodes MP-104 SIP Gateway

The system supports SIP (Session Initiated Protocol) trunks to reach the CO. SIP trunks allow the system to communicate with the CO through SIP-enabled gateways. As the SIP protocol becomes more and more popular, it is important to be able to communicate to SIP gateways in the IP-centric world. Inter-Tel currently supports the AudioCodes MP-104 SIP gateway (with software version 4.2).

Inter-Tel does not provide technical support for any SIP gateway other than the AudioCodes MP-104 SIP gateway. SIP trunks support the following functionality:

- They are transparent to the system user because SIP trunks act like any other CO trunk in the system.
- They support transferring trunks, putting trunks on hold, and connecting trunks to conferences similar to other CO trunks in the system.
- They support making and receiving calls by any endpoint.
- They support peer-to-peer (P2P) audio by IP endpoints.
- They reside in CO trunk groups like other trunks so that SIP trunk calls can be routed using Automatic Route Selection (ARS).
- They support 911 (999 in Europe) calls the same as MGCP trunks.

The MP-104 does not support the following features:

- Pause digits. These digits are used to program a speed-dial or other digit string.
- SIP registration which is used for authentication purposes.

IP and SIP Connectivity

Devices using Inter-Tel Protocol (ITP) IP and Session Initiation Protocol (SIP) IP allow users to communicate using the Local Area Network (LAN) and the public telephone system.

IP and SIP calls can be routed through the Inter-Tel CS-5200/5400 or they can be configured as members of the same Network Group. If the devices are configured to be members of a Network Group, they can use the Peer-to-Peer (P2P) audio feature (see page 69).

IP and SIP Endpoint Ports and Connectors

The ports and connectors on IP and SIP endpoints vary depending on the model number. The following ports and connectors may be included on your endpoint:

- **Headset Jack:** Connects to a headset.
- **Handset Jack:** Connects to a handset.
- **Combined Headset/Handset Jack:** Connects to a headset or handset.
- **LAN/Power Jack:** Connects to an external power supply (see page 69)
- **Personal Computer (PC) Port(s):** Connects to a PC or any other 10/100 Ethernet device
- **LAN/Power Jack:** Connects to a network hub or a switch
- **External Microphone Jack:** Allows you to connect an external microphone to the endpoint. (8690 only)
- **External Speaker Jack**: Allows you to connect an external speaker to the endpoint (8690 only)
- **Reset Button:** Resets the connection to the network (8690 only)
- **Compact Flash (CF) Port:** Allows you to connect a CF memory card if additional memory is needed (8690 only)
- **Personal Computer Memory Card International Association (PCMCIA) Port**: Allows you to connect a PCMCIA memory card if additional memory is needed (8690 only)
- **Universal Serial Bus (USB) Client Port:** Connects the endpoint to a host computer running ActiveSync® (8690 only).
- **USB Host Port:** Allows you to connect a keyboard, mouse, or other USB device to your endpoint (8690 only)

Battery Packs and Chargers

Models 8664 and 8665 require a charged battery pack to operate. The Nickel Metal Hydride (NiMH) rechargeable battery pack needs to be charged periodically. A charged battery pack provides four hours of talk time or 80 hours of idle time. To save battery power, instruct the user to place the endpoint in idle mode at the end of every call.

When the charge on the battery pack is low, the battery icon is displayed. The user will also hear a soft beep through the earpiece every six seconds when the battery is low. When the battery pack is critically low, the endpoint will not work until the battery pack is charged

Power Supplies

Each SIP and IP device must use a compatible power supply. Because there are so many power supply options, it is recommended that you refer to the *IP Devices Power Supply Compatibility Matrix* (part no. 835.2688) when selecting a power supply for the IP or SIP device.

IP Limitations

Currently, SIP and IP devices have the following limitations:

- They do not have a secondary voice path and cannot support off-hook voice announce (OHVA).
- They do not support the enhanced speakerphone mode feature.
- They cannot use a PCDPM or MDPM.
- They do not support full DSS/BLF units.
- They do not support Desktop Open Architecture Interface (OAI) applications.
- While using P2P audio, SIP and IP devices do not support the Agent Help, Record-A-Call, and Station Monitor features.

Peer-to-Peer Audio for IP and SIP Devices

The P2P audio feature allows certain IP and SIP devices to transmit and receive audio directly with each other rather than through the system chassis. The P2P feature reduces delay and packet loss for IP and SIP devices.

Devices that support P2P audio include:

- AudioCodes™ MP-104 MGCP gateway
- IP endpoints, except the IP SoftPhone
- Multi-Protocol endpoints
- SIP endpoints

To use P2P, the IP Resource Application and the IP and/or SIP devices must be upgraded with v8.1 firmware. In addition, the devices must be programmed as members of the same Network Group. Calls between IP and SIP devices that are members of separate Network Groups are routed through the chassis and do not use P2P.

The Network Group Diagnostics feature allows an administrator to verify that the Network Groups are programmed correctly. For instructions on how to use the Network Group Diagnostics feature, refer to page 40.

IP devices that use P2P audio do not use chassis resources when they are connected in a P2P call. Therefore, the following features will not work during a P2P call:

- Agent Help
- Record-A-Call
- Station Monitor

NOTICE

Passing real-time streaming data, such as audio, through encrypted virtual private networks (VPNs) may significantly impact the network performance, router and firewall functionality, and audio quality.

Automated Boot Code Update

Information about the automatic update of endpoint boot code is included in this guide for the following reasons:

- You may be unaware that the update is occurring.
- Interruption of power to the endpoint during the download causes the endpoint to be inoperable and unrecoverable.

A Model 8620/8622, or 8662 endpoint with v2.0.0 or later firmware uses a TFTP server to update a crucial internal boot code. In any of the following situations, the endpoint checks its configuration file against a corresponding file on the TFTP server:

- On startup
- On command
- On periodic timeout
- If the endpoint detects new parameters during this check, it automatically initiates the boot update procedure to download new boot code. However, the download is delayed if a call is in progress or music on hold is enabled. The endpoint display changes to alert you that the update is in progress...

CAUTION

If, during the boot code download, electrical current to the endpoint is interrupted (e.g., through disconnection or a power outage), the endpoint becomes inoperable and cannot be recovered. In that event, the endpoint must be returned to Inter-Tel for repair.

Displays

Some IP and SIP endpoints provide a Liquid Crystal Display (LCD) that shows caller and feature information.

NOTE For endpoints operating in SIP mode, voice mail displays are not supported; however, the user will still receive audio prompts.

Six-Line Display

Some endpoints, like the Model 8660 and 8662 endpoints have a six-line LCD. Each line has 16 characters. The top two lines are for standard call information and show the same displays as other display phones. The remaining four lines are used for displaying feature-related menus that change with the function being performed by the endpoint (intercom call, outside call, programming, etc.). These lines have menu selection buttons on both sides (eight buttons) that are used for menu features. When there are two prompts on a line, like PREVIOUS and NEXT, the button next to the word is the one that will select that feature. When there is only one prompt on a line, like DO NOT DISTURB, then pressing the button on either side of the prompt will select it.

There is a system-wide flag, called “Alternate Keyset Menu Displays,” that determines the display that users see during an outside call. In the default state, the display shows the following menu with Transfer-To-Hold on the first menu and Flash on the “More...” menu:

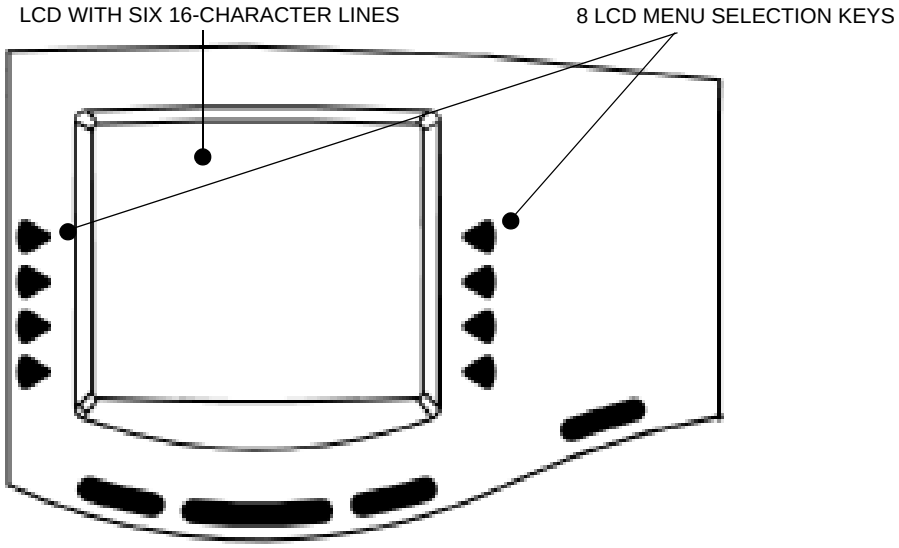
HOLD	SYS HOLD
TRANSFER	CNF
TRANSFER-TO-HOLD	
MUTE	MORE...

If the Alternate Keyset Menu Displays flag is enabled, users will see the following menu with Flash on the first menu and Transfer-To-Hold on the “More...” menu:

HOLD	SYS HOLD
TRANSFER	CNF
FLASH	
MUTE	MORE...

Enabling the Alternate Keyset Menu flag allows Centrex features to be accessed more easily, using the FLASH menu option.

Figure 4. *Model 8660 or 8662 Endpoint Display*



Two-Line Display

The Model 8620/8622 endpoint has a two-line display that supports 16 characters per line.

When the endpoint is not in use, the display shows the endpoint extension number, username, time of day, and date. Other displays include reminder messages, DND messages, numbers dialed, call sources, elapsed time of calls, current call costs, error messages, endpoint status, programming messages, etc. The displayed information is described throughout the instructions in this section of the manual.

Node and Circuit Number on Power-Up

To aid in installation and troubleshooting procedures, display endpoints show their identification for 5 seconds when power is turned on, when the system is reset, or when the endpoint line cord is first plugged in (or removed and replaced). The extension number and assigned username appear on the top line of the display, and the node number and circuit number appear on the bottom line (for example, circuit 1.1.1 on node 2 would appear as 2:1.1.1). After the five-second identification display, the endpoint returns to the appropriate display, depending on its current status.

Default Inter-Tel Endpoint Feature Buttons

When the system is in the default state, all endpoints are in the same keymap group and have the following feature buttons. Feature code descriptions start on page 93. (The Special button is represented by keycaps with ∞ on the Inter-Tel endpoint.)

The following table describes the functions of endpoint feature buttons.

Table 13. *Feature Buttons*

BUTTON	FUNCTION
CALL KEYS 1–4	Selects an outgoing trunk, if idle, or answers a call on the button.
IC	Selects a voice channel or picks up a holding or camped-on intercom call.
DND	Programmable button 1: Do-Not-Disturb On/Off (372)
PROGRAMMABLE KEYS 2–6, 14–16, 18, and 21–35	Undefined values. Can be programmed with any feature code, trunk access code, or extension number, or can be programmed as an endpoint or System Speed Dial bin.
CNF	Programmable Button 7: Conference (5)
HOLD	Programmable Button 8: Individual Hold (336)
TRANSFER	Programmable Button 9: Transfer to Ring (345)
SYS SPD	Programmable Button 10: System Speed Dial (381)
REDIAL	Programmable Button 11: Redial (380)
PAGE	Programmable Button 12: Page (7)
QUEUE	Programmable Button 13: Queue Request (6)
MUSIC	Programmable Button 17: Background Music (313)
PAGE ZONE 1	Programmable Button 19: Selects Page Zone 1 for making a page.
STN SPEED DIAL	Programmable Button 20: Station Speed Dial (382)
FWD	Call Forward All Calls (355) Also used for canceling Call Forward.
SPECIAL	Signals the system to expect a feature code.
ANSWER	Answer (351)
OUTGOING	Selects a trunk for placing an outgoing call using the endpoint's Outgoing Call feature (8).
SPEAKER	Speakerphone On/Off
MSG	Message (365) – Also retrieves messages when the flashing MSG button is pressed.
MUTE	Microphone Mute On/Off (314)
DATA	Data (340)
STATION SPEED DIAL KEYS 0–9	Used for storing and dialing one Station Speed Dial number each.
UNDEFINED	Some endpoints may have several undefined buttons that can be programmed as desired.

Keymaps

A keymap group determines the layout of the buttons for all the endpoints assigned to that group. If any of the buttons in the keymap group are user-programmable or undefined, they can be changed by the endpoint user. There can be up to 250 different endpoint keymap groups. Each node contains its own keymap programming.

Each Inter-Tel endpoint is assigned a standard keymap and can also have an alternate keymap. See page 138 for information about switching between standard and alternate keymaps.

When the system is in the default state all phones are assigned to the default Keyset Keymap 01. There are no individual pre-programmed keymaps for each of the specific endpoint types.

As part of the installation procedure, the installer must make sure the endpoint buttons are labeled to match their functions.

The buttons in each keymap can be assigned the following functions:

- **Accept Key:** This button is used to accept an entry when using numeric mode.
- **Cancel Key:** No further programming is necessary. This button will be used to cancel a feature or cancel an entry when in numeric mode.
- **Call Key:** Up to 10 Call buttons can be assigned in each keymap. These buttons are used for call access. They are not associated with specific trunks. Instead, they are assigned to calls in the order that the calls are placed or received. In the following example, the user has three Call buttons.

  The following table describes the use of 3 Call buttons.

Table 14. *Call Buttons Example*

ACTION	CALL BUTTON 1	CALL BUTTON 2	CALL BUTTON 3
User places call #1	Shows status of call #1		
Call #2 rings in while call #1 is active	Shows status of call #1	Shows ring flash for call #2	
Calls #1 and #2 on hold, call #3 placed	Shows hold flash for call #1	Shows hold flash for call #2	Shows status of call #3

If there are more calls in progress than there are Call buttons (e.g., if another call rings in to the endpoint in the example), the new call will not have an available call button and will camp on to the endpoint until a Call button becomes available; it will then appear under the available button. Pressing an idle Call button will enter the programmed Outgoing Call feature for that endpoint. If there is no IC button programmed in the keymap, intercom calls will appear under Call buttons.

NOTE All keymaps should have at least one Call button if there is not an individual trunk button for every trunk.

- **Down Key:** No further programming is necessary. This button can be used scrolling backward through displays. When the endpoint is idle, it can be used for adjusting volume, in place of the Volume button.
- **Feature Key:** These are programmed with feature codes. The feature code appears in the same button location on all endpoints assigned to the keymap and cannot be changed by the endpoint user.
- **Forward Key:** The forward button can be programmed with any of the Call Forwarding feature codes. The forwarding code used by the button can be changed by the endpoint user.

- **Hunt Group Key:** This button dials a hunt group pilot number when pressed and, if assigned to a button with a lamp, will show the status of that hunt group.
- **Individual Trunk Key:** This button is associated with one trunk. It can be used for placing outgoing calls, and for picking up calls on hold and answering incoming calls on that trunk.
- **Intercom (IC) Key:** The IC button allows access to intercom channels for placing and answering calls. If an IC button is not assigned, an intercom call will appear under a Call button.
- **Page Zone Key:** A page zone button is programmed with one of the page access codes (9600–9609 or 9600–9649 depending on the software version) for quick access to page zones (0–9 or 0–49 respectively).
- **Programmable Key:** Up to 35 user-programmable buttons can be designated and given default values in the keymap database. They can then be reprogrammed to enter any of the trunk group access codes, extension numbers, or feature codes by the individual endpoint users as desired. Or, they can be programmed as System or Station Speed Dial bins, or as secondary extension buttons (see below). The endpoint user or programmer can return the buttons to default values at any time.
- **Secondary Extension Key:** This type of button allows an endpoint user to have one-button access to calls ringing or holding at another endpoint. It should be assigned to a button with a lamp so that the secondary extension button can show the call status. If desired, an endpoint can have several secondary extension buttons, each associated with a different endpoint. For details, see page 137.
- **SPKR Key:** This button is used for turning the endpoint speaker or headset on and off.
- **Speed Dial Keys:** Each keymap can have up to 10 Speed Dial buttons. Each Speed Dial button can be programmed by the endpoint user to dial one digit string. If assigned to a button with a lamp, the lamp will show the status of an extension number if it is associated with that button.
- **Trunk Group Key:** These buttons are associated with specific trunk group access codes and are used for placing outgoing calls on trunks in the selected trunk group. If assigned to a button with a lamp, the lamp will be lit if all trunks in the trunk group are in use.
- **Undefined Key:** Any button can be left undefined if it will not be needed. It can be programmed, like a user-programmable button, as described above. If the endpoint user or programmer returns the endpoint to default values, the button will return to being "undefined."
- **Up Key:** No further programming is necessary. This button can be used for scrolling forward through displays. When the endpoint is idle, it can be used for adjusting volume, in place of the Volume button.

NOTE The volume adjustment button on some endpoints also can be used for scrolling through displays.

Secondary Extension Appearances

The Secondary Extension Appearances feature allows calls ringing or on individual hold at one "primary" endpoint to appear on a "secondary extension button" at another endpoint. For example, a secretary or assistant can have a secondary extension button for a supervisor's endpoint, or one endpoint can have several secondary extension buttons, each associated with a different primary endpoint. The primary endpoint and the secondary endpoint must reside on the same node.

A secondary extension button functions as follows:

- When a call is ringing or holding on any Call button at the primary endpoint, pressing the secondary extension button will allow you to answer the call. This action allows you to answer recalls, transfers, callbacks, and hunt group calls.
- If the secondary extension button is unlit, pressing the button places an intercom call to the primary endpoint. If the button is flashing, an intercom call can still be placed without answering the incoming call by pressing the pound (#) button before the secondary extension button, by pressing a Mini-DSS Unit button, or by manually dialing the primary endpoint's extension number.

There are two programmable options that determine the type of call indications the endpoint user will receive for calls on a secondary extension button:

- **Ring When *n* Calls At Extension:** This programmable option allows the endpoint to receive a burst of ringing when "n" number of calls are present at the associated primary endpoint. The ring signal will repeat periodically as long as "n" number of calls are present at a primary endpoint. (This period is determined by the DKTS Secondary Extension Key Alerting Tone timer.) If "n" is set to 0, the secondary endpoint will never receive the burst of ringing. This option is programmed individually for each secondary extension button, during keymap programming.
- **Transient Call Indication On Call Answer:** This programmable endpoint flag determines whether the endpoint user will see a call display when answering a call by pressing the secondary extension button or reverse-transferring the call. If enabled, the display will tell if the call was ringing, recalling, transferred, or holding at the primary endpoint.

The secondary extension button can be located on an Inter-Tel endpoint. There are two ways to make a secondary extension button:

- Create a secondary extension button in the keymap and determine which endpoint it will represent. This will be the same for all endpoints assigned to that keymap.
- Set the default value of a user-programmable button to "secondary extension button" in the keymap. This allows each endpoint user assigned to that keymap to determine the associated endpoint for his or her secondary extension button. (See page 137 for button programming procedures.)

User-programmable buttons cannot be made into secondary extension buttons by the endpoint user; they can only be created in the database. Also, the endpoint user cannot change the button into any other ***type*** of button (such as a Speed Dial or feature button), even though it is assigned to a user-programmable button.

Any Inter-Tel endpoint button can be designated as a secondary extension button, but buttons with lamps are recommended so that the secondary extension button can show call status. The table on the next page shows the definition for each possible lamp flash rate.

The secondary extension button shows only calls that appear under the Call buttons at the primary endpoint. Any calls on individual trunk buttons at the primary endpoint are considered private calls and will not appear on the secondary extension button.

Normally, the secondary extension button will not show intercom calls. However, if the primary endpoint does not have an IC button, intercom calls will appear under a Call button and, therefore, will appear on the secondary extension button. If the primary endpoint is a single line set, ***all*** calls will appear on the secondary extension button.

After answering a call on the secondary extension button, the endpoint user can transfer it back to the primary endpoint using one of the following methods:

- **Transfer to hold:** To transfer the call to hold at the primary endpoint, press the secondary extension button, announce the call, if desired, and then hang up.
- **Transfer to ring:** To transfer a call to the primary endpoint, press the TRANSFER button and then the secondary extension button. You can announce the call, if desired, before hanging up to complete the transfer.

Because the calls that appear on the secondary extension button are active only at the primary endpoint, they will not follow call forwarding or system forwarding paths at the endpoint with the secondary extension button.

Flashing Light Indicators

The endpoint Call buttons, trunk buttons, Speed Dial buttons, hunt group buttons, and some of the feature buttons contain light-emitting diodes (LEDs). The LED flash rates indicate the status of the endpoints, trunks, and features.

The following tables describe the meanings of the LED flash rates for endpoints operating in ITP and SIP mode in interruptions per minute (IPM).

Table 15. *Flashing Light Indicator Meanings*

BUTTON	STEADY 0 IPM	SLOW 30 IPM	MEDIUM 120 IPM	FAST 240 IPM	FLUTTER 60/960 IPM
CALL		Call is active	Call is recalling from hold or transfer	Call or queue callback is ringing in or camped on (waiting)	Call is on hold at the user's endpoint or the user has entered a transfer feature code.1
CNF		Conference is in progress.	Conference is recalling your endpoint.		A conference party is on conference wait hold.
DATA[2]	Auto-dial modem is dialing and the data port is unavailable. (Red LED)			Ring signal is being sent to the data device.	Data call is in progress and accessible. A continuous flutter indicates that the data device is off-hook.
DND	Endpoint is in Do-Not-Disturb.				
DSS[2]	The programmed endpoint in busy or unplugged.	The programmed endpoint is in DND.		The programmed endpoint has a call ringing in.	Continuous flutter indicates that the programmed endpoint was left off-hook.

Table 15. *Flashing Light Indicator Meanings(Continued)*

BUTTON	STEADY 0 IPM	SLOW 30 IPM	MEDIUM 120 IPM	FAST 240 IPM	FLUTTER 60/960 IPM
FEATURE[2]	The feature is in use.				
FWD	Calls are being forwarded.				
HUNT GROUP	All endpoints in hunt group are unavailable.			Hunt group has a call camped on.	
IC		Intercom call is in progress.	Recalling intercom call is camped on (waiting).	Intercom call is camped on (waiting).	An intercom call is on hold at the user's endpoint or the user has entered a transfer feature code.1
MSG	Endpoint is in alphanumeric mode.		Message is waiting.		
MUTE	Microphone is muted.				
SPEAKER	Speakerphone is on or ready for use. Or, endpoint programming is in progress.				
SPEED DIAL[2]	Designated endpoint is busy or unplugged.	Designated endpoint is in DND.		Designated endpoint has a call ringing in.	Continuous flutter indicates that the designated endpoint was left off hook.
TRUNK	Trunk is in use at another endpoint, in a conference at your endpoint, or it is unplugged.	Trunk is in use at your endpoint.	Trunk is recalling from hold or transfer.	Trunk is ringing in, camped on (waiting), or in busy trunk callback queue to your endpoint.	Trunk is on hold.
ANSWER				Models 8620 and 8662: Intercom, recall, conference, camped on, or transferred call is ringing-in.	

Table 15. *Flashing Light Indicator Meanings(Continued)*

BUTTON	STEADY 0 IPM	SLOW 30 IPM	MEDIUM 120 IPM	FAST 240 IPM	FLUTTER 60/960 IPM
CNF		The LED flashes for 2–5 seconds and then go out when the conference is established.			A conference party is on conference wait hold.
DND	Endpoint is in Do-Not-Disturb.				
FWD	All calls are being forwarded.				
MSG	Endpoint is in alphanumeric mode.		Message is waiting.		
MUTE	Microphone is muted.				
SPEAKER	Speakerphone is on or ready for use. Or, endpoint programming is in progress.			Model 8600: Intercom, recall, conference, camped on, or transferred call is ringing-in.	

[1]For transfers, the IC or CALL button LED goes out when the user hangs up.

[2]Requires a programmable button.

Headsets

For convenience, an electret headset can be used on any Inter-Tel endpoint. The Speaker button is used to connect and disconnect calls when the headset is attached.

Some headsets have a power-saver mode that disables the headphone after a period of silence. To prevent these headsets from missing portions of incoming calls, there is a endpoint flag called “Headset Connect Tone.” Enabling this flag allows the endpoint to generate a tone that activates the headset before connecting to an incoming call. In the default state, it is disabled.

The Model 8620 and 8660 endpoints have headset jacks on the back. This allows you to have the headset and the handset connected to the endpoint at the same time. You must still, however, enable/disable the headset using the Headset Mode feature code.

To connect a headset to a Model 8660 or 8620:

1. Insert the headset plug into the vacant headset jack on the back of the endpoint.
2. While on-hook, enter the Headset On feature code (315) or the Headset On/Off feature code (317). The display shows HEADSET MODE ON.

To connect a headset to all other Inter-Tel endpoints:

1. Remove the coiled handset cord from the base of the endpoint. Leave the handset in the cradle.
2. Insert the headset plug into the vacant handset jack.
3. While on-hook, enter the Headset On feature code (315) or the Headset On/Off feature code (317). The display shows HEADSET MODE ON.

To disconnect the headset from a Model 8660 or 8620:

1. Unplug the headset cord from the back of the endpoint.
2. While on-hook, enter the Headset Off feature code (316) or the Headset On/Off feature code (317). The display shows HEADSET MODE OFF.

To disconnect the headset from all other Inter-Tel endpoints:

1. Unplug the headset cord from the base of the endpoint.
2. Plug the coiled handset cord into the base of the endpoint.
3. While on-hook, enter the Headset Off feature code (316) or the Headset On/Off feature code (317). The display shows HEADSET MODE OFF.

NOTE If enabled in DB Studio, the **Send Alert Burst To Headset** flag will send a single tone to a headset, instead of normal phone ring tones, when a call is ringing at the endpoint (non-handsfree intercom call, outside call, queue callback, or reminder message). The tone is sent only once, when the call is received, and will not repeat even if the call continues to ring unanswered. It is intended as a "wake up" tone for headsets that have a power-saving function that allows the device to "sleep" if idle for a set period. The flag is programmed on a endpoint-by-endpoint basis. By default the flag is disabled.

Operating Modes

Depending on the model, Inter-Tel IP endpoints operate in Inter-Tel Protocol (ITP) mode or Session Initiation Protocol (SIP) mode. Supported features for the two modes varies (see page 80). Details about each of the modes are presented in the following pages.

The following multi-protocol endpoints operate in either ITP or SIP mode:

- Model 8600
- Model 8620
- Model 8622
- Model 8662
- Model 8690

The following endpoints operate in ITP mode:

- Model 8664 (wireless)
- Model 8665 (wireless)
- Model 8660
- IP PhonePlus
- IP Single-Line Adapter (IP SLA)

The Model 8601 SoftPhone for Pocket PC operates in SIP mode.

Inter-Tel Protocol (ITP) Mode

When the multi-protocol endpoints operate in ITP mode, the endpoints function like traditional Inter-Tel endpoints. The endpoints connect to Inter-Tel's advanced communications platforms via an IP stream to the IP Resource application running an Inter-Tel proprietary protocol. This is the same protocol that the Model 8660 uses. The main difference is that the multi-protocol endpoints connect to the system via IP.

The advantage of ITP mode over SIP mode is that ITP mode allows you to use the features and functionality that the system provides for a traditional endpoint. The disadvantage of ITP mode over SIP mode is that when the endpoint is in ITP mode, it cannot connect to another vender's switch. All of the multi-protocol endpoints are configured to use ITP by default.

To support multi-protocol endpoints in ITP mode, a Call Processing software license is required.

Session Initiation Protocol (SIP) Mode

When the multi-protocol endpoints are in SIP mode, the endpoints use SIP to connect to the Inter-Tel SIP Server (v1.1 or later). The advantage of running in SIP mode on an Inter-Tel advanced communications platform is the use of the Shared Extension feature. A shared extension allows up to five SIP endpoints to use the same extension number on the same system. Incoming calls to a shared extension are sent to SIP endpoints simultaneously. Once one of the endpoints answers the call, the SIP Server cancels the call to all other endpoints. This provides you with mobility so that you do not miss any calls when you are away from your main desk. Another advantage of SIP mode is that the endpoint can run on another vendor's switch that supports SIP. The disadvantage of SIP mode on an Inter-Tel advanced communications platform is the reduced feature set.

ITP and SIP Supported Features

Users can access most features by entering a feature code using the endpoint's dialpad buttons. The following table shows the station features (and default feature codes) that are supported for endpoints operating in ITP mode and SIP mode.

Support for some features varies by device. For a complete list of supported features refer to the appropriate user guide. See Table 40 on page page 247 for a table of user guides and part numbers.

Table 16. *ITP and SIP Features and Feature Codes*
√ = supported; x = not supported

FEATURE NAME	FEATURE CODE	ITP MODE	SIP MODE
Account Code – Following Calls	391	√	*x*
Account Code – Optional	390	√	*x*
ACD Agent Log In	326	√	*x*
ACD Agent Log Out	327	√	*x*
ACD Agent Log In/Out	328	√	*x*
ACD Agent Wrap-Up Terminate	329	√	*x*
Agent Help Request	375	√	*x*
Agent Help Reject	376	√	*x*
Answer (Ringing Call)	351	√	√
Automatic Intercom Access On/Off	361	√	*x*

Table 16. *ITP and SIP Features and Feature Codes(Continued)*
√ = supported; x = not supported

FEATURE NAME	FEATURE CODE	ITP MODE	SIP MODE
Automatic Line Access On/Off	360	√	*x*
Automatic Line Answer	350	√	*x*
Background Music On/Off	313	√	*x*
Call Forward All Calls	355	√	√
Call Forward If Busy	357	√	*x*
Call Forward If No Answer	356	√	*x*
Call Forward No Answer/Busy	358	√	*x*
Conference	5	√	√
Default Station	394	√	*x*
Directory	307	√	*x*
Display Time And Date (Inter-Tel Protocol IP Mode) Show IP Address (SIP Mode)	300	√	√
Do-Not-Disturb	370	√	√
Do-Not-Disturb Cancel	371	√	√
Do-Not-Disturb On/Off	372	√	√
Do-Not-Disturb Override	373	√	*x*
Feature Button Default	395	√	*x*
Group Listen	312	√	√
Handsfree On/Off	319	√	*x*
Headset On	315	√	√
Headset Off	316	√	√
Headset On/Off	317	√	√
Hold – Individual	336	√	√
Hold – System	335	√	*x*
Hunt Group Remove	322	√	*x*
Hunt Group Replace	323	√	*x*
Hunt Group Remove/Replace	324	√	*x*
LCD Contrast Control	303	√	√
Message	365	√	√
Message – Cancel Message Left	366	√	*x*
Message – Cancel Message On Endpoint	368	√	x
Message – Silent Message	367	√	*x*

Table 16. *ITP and SIP Features and Feature Codes(Continued)*
√ = supported; x = not supported

FEATURE NAME	FEATURE CODE	ITP MODE	SIP MODE
Microphone Mute On/Off	314	√	√
Page	7	√	*x*
Page Receive On/Off	325	√	*x*
Program Buttons	397	√	*x*
Program Station Password	392	√	*x*
Queue (Callback) Request	6	√	*x*
Record-A-Call	385	√	*x*
Redial	380	√	√
Redirect Call	331	√	√
Reminder Message	305	√	*x*
Reminder Message Cancel	306	√	*x*
Remote Programming	359	√	*x*
Reverse Transfer (Call Pick-Up)	4	√	√
Review Buttons	396	√	*x*
Ring Intercom Always On/Off	377	√	*x*
Ring Tone Selection	398	√	√
Routing Off	304	√	*x*
Station Speed Dial	382	√	*x*
Station Speed-Dial Programming	383	√	*x*
System Forward Enable	352	√	*x*
System Forward Disable	353	√	*x*
System Forward On/Off	354	√	*x*
System Speed Dial	381	√	*x*
Switch Keymap	399	√	*x*
Transfer To Hold	346	√	*x*
Transfer To Ring	345	√	*x*

IP and SIP Feature Exceptions

Some devices cannot fully support certain features due to hardware or software restrictions. These exceptions are listed below by device.

Model 8600: The Model 8600 endpoint operates in ITP or SIP mode. However, the endpoint does not support the following features (feature code) in either mode:

- Feature Button Default (395)
- Microphone Mute On/Off (314)
- Program Buttons (397)
- Review Buttons (396)
- Switch Keymap (399)

Model 8690: The Model 8690 endpoint operates in ITP or SIP mode. However, the endpoint does not support the following features (feature code) in either mode:

- Change Language (301)
- Feature Button Default (395)
- LCD Contrast Control (303)
- Program Buttons (397)
- Review Buttons (396)
- Switch Keymap (399)

Models 8664 and 8665: The Model 8664 and 8665 wireless IP endpoints operate in ITP mode. However, they do not support the following ITP features (feature code):

- Automatic Intercom Access On/Off (361)
- Automatic Line Access On/Off (360)
- Background Music On/Off (313)
- Change Language (301)
- Group Listen (312)
- Handsfree On/Off (319)
- Headset On, Headset Off, Headset On/Off (315, 316, 317)
- LCD Contrast Control (303)
- Page Receive On/Off (325)
- Switch Keymap (399)

Model 8601: The Model 8601 operates in SIP mode only. However, it does not support the following SIP features (feature code):

- Headset On, Headset Off, Headset On/Off (315, 316, 317)
- LCD Contrast Control (303)
- Show IP Address (300)

Feature Codes: The two feature codes in the table below function differently, depending on the mode that the endpoint is operating in.

FEATURE NAME	FEATURE CODE	ITP MODE	SIP MODE
Show IP Address Display Time/Date	300	Displays the system date and time, user-name, and extension.	Displays the IP address of the end-point.
Show Version Diagnostics -Show Version	9928	Displays the version and date of the call processing software.	Displays the firmware version on the end-point.

Voice mail displays: In SIP mode, voice mail displays are not supported, however, the user will still receive audio prompts.

Optional System Equipment

The following optional equipment can be purchased and installed with the Inter-Tel system. Complete specifications and installation instructions are provided in the Inter-Tel *5200/5400 Installation and Maintenance Manual* (part number 580.8001).

Voice Processing: Depending on the selected voice processing option, provides multi-port integrated voice processing features (e.g., Voice Mail, Automated Attendant, hunt group announcement and overflow, SMDR storage, Record-A-Call, etc.) Inter-Tel supports three types of voice processing systems. See page 5 for more information about voice processing systems and supported features.

Attendant Console: Allows Attendants to use their personal computers (PCs) to answer and manage incoming call traffic. It is primarily designed for use by Attendants of larger systems. However, due to its enhanced functionality, including electronic text messaging and directory dialing, the Attendant Console is an attractive option for smaller systems as well.

External music sources: External music sources (radios, tape players, etc.) can be connected to the system to provide music-on-hold and background music.

External paging speaker equipment: An amplifier and speakers can be connected to the system to provide external paging and background music to large areas, such as warehouses, loading docks, etc.

Mini-DSS (Model 8416): The Model 8660 supports the Mini-Direct Station Select (DSS) Unit, which provides 16 programmable buttons that allow the user, typically an attendant, to monitor up to 16 extensions. The unit attaches directly to the Model 8660 endpoint and does not require any peripheral equipment.

SMDR and error message recording output devices: Output devices can be connected to record the data generated by the Station Message Detail Recording (SMDR) and error message recording features. The device can be a printer, magnetic tape, floppy disk, etc.

Surge/spike protector: A surge/spike protector should be installed to reduce the effects of AC voltage surges and spikes that may cause system malfunctions, false logic, and/or damage to the electronic components.

System battery back-up: To provide back-up power in the event of an AC power failure or brownout condition, the system power supply can have optional battery back-up using an uninterruptable power supply (UPS) unit or a standby power supply (SPS) unit.

Facsimile (fax) machine: A fax machine may be connected to an available single line circuit.

Off-premises endpoints: Single line DTMF endpoints can be connected to the system at a remote location. The connection is made through a telephone company OPX circuit or a customer-provided trunk.

Playback devices: A playback device (answering machine) can be used in place of the voice processing system interface to help process calls. The device answers a call, plays a message, then disconnects from the call (or transfers it to a hunt group) to allow the caller access to other system resources.

Power failure transfer equipment: Power failure transfer equipment can be installed to connect one or more single line endpoints to predetermined trunks during a power or system failure.

Night transfer equipment: Night transfer equipment can be installed to turn on or off lights, an alarm system, or other devices.

Additional Information and Troubleshooting

For additional information about multi-protocol endpoints not covered in this administrator guide, see the *Multi-Protocol Endpoints: Supported Features, Buttons, and LED Indications* document (part number 835.2840). For detailed troubleshooting information, including troubleshooting tables for SIP and IP devices, see the latest version of the *Inter-Tel CS-5200/5400 Communication Servers Installation and Maintenance Manual* (part no. 580.8001).

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Introduction

The Inter-Tel system, in addition to its sleek, modular appearance and easy installation and programming, provides many user-friendly features. To describe the system features, this chapter has been divided into the following sections:

- **Access to the Features:** This section contains a list of the feature codes and their definitions.
- **System Organization:** This section describes possible administrator assignments, Attendant arrangements, and hunt groups (including UCD and ACD hunt groups).
- **Trunk Features:** This section explains the trunk functions and programmable features, including: dual-tone multi-frequency (DTMF) or dial-pulse signaling; types of trunks (loop start, T1/E1/PRI); Caller ID, DNIS, and ANI; trunk groups; outgoing access, allowed-answer, and ring-in assignments; call routing tables; day and night modes of operation; automatic route selection (ARS); trunk and toll restriction; area/office code number plans; emergency calls; and direct inward system access (DISA).
- **Endpoints:** This section describes the endpoint supported by the system. Available endpoints include IP endpoints operating on Inter-Tel Protocol (ITP), IP Single-Line Adapters (IP SLAs), SIP endpoints, Mini-DSS (Direct Station Select) Units, and single line endpoints such as single line telephones, answering machines, and FAX machines.
- **Intercom, Outside, and General Call Processing Features:** Several sections explain the use of the endpoint features that are available to all endpoint users, including intercom call features, outside call features, and general call processing features.
- **Attendant Features:** This section explains the special Attendant-only features.
- **Administrator Features:** This section explains the special Administrator-only features.
- **Record Keeping and Maintenance Features:** A system error reporting feature provides self-diagnostic information to make the system easier to service.

Access to the Features

Inter-Tel endpoints have feature buttons that allow one-button dialing of feature codes. Information is programmed in the database to determine the arrangement of the feature buttons and their default values. If desired, some of the endpoint feature buttons can be designated as user-programmable buttons. See page 137 for more information.

Special Button and Hookflash

Depending on the feature and system programming, users can either enter feature codes immediately after lifting the handset or while on-hook, or they must signal the system before entering the feature code. Inter-Tel endpoint users signal the system by pressing the Special button (which is represented by ∞ on the endpoint). Single line DTMF endpoint users perform a hookflash (press and release the hookswitch quickly). If the user does not enter a code or begin dialing before the Dial Initiation timer expires, the system sends reorder tones.

Message Lamp

Inter-Tel IP endpoints have a Message Lamp located on the upper, right-hand corner. This lamp is programmable and is defaulted to the Message feature code (365). If you change the feature code associated with this lamp, it flashes when the feature is active. For example, if you program the lamp for Individual Hold (336), the lamp flashes when a call is held at the endpoint.

Speaker Buttons

On the Model 8600, 8620, 8660, or 8662 endpoint, an illustration of a speaker (🔊) represents the **Speaker** button.

Hold Buttons

On the Model 8600, 8620, 8660, or 8662 endpoint, the international hold illustration (⏏) represents the **Hold** button.

"Hot" DIALPAD Buttons vs. "SPCL Key Required For Feature Code Entry" Flag

Unless programmed to use the **Special** button when entering a feature code, all Inter-Tel endpoints have "hot" dialpad buttons that allow dialing of feature codes, extension numbers, and trunk access codes without pressing the **Special** button or lifting the handset. As soon as a dialpad digit is pressed, the digit is recognized by the system.

There is a system-wide option called "SPCL Key Required For Feature Code Entry" that, if enabled, requires Inter-Tel endpoint users to always press the **Special** button before entering a feature code.

Regardless of programming, if an Inter-Tel endpoint user presses the **Special** button while on-hook, the display shows ENTER FEATURE CODE. The user can enter the desired code or press a menu button.

Feature Codes

Each of the endpoint features is assigned a feature code. Using the endpoint's dialpad, these codes are entered to select trunks, process calls, and use special features. Complete explanations of the features and instructions for using them begin on the next page.

The codes shown on the following pages are the values that are assigned when the system is in the default state. If desired, they can be changed in Database Programming to any one- to five-digit value.

NOTE Changing a feature code may affect the accessibility of other features.

Trunk Access Codes

These feature codes are used for selecting trunks when placing outgoing calls.

Table 17. *Trunk Access Codes*

FEATURE NAME	CODE/ EUROPE	DEFINITION
Automatic Route Selection (ARS)	92000*	Allows the system to select the desired route for placing a call, as programmed in the database.
Trunk Group Access 1-208	92001–92208*	Selects an available trunk from a programmed group of trunks for placing an outside call.
Emergency Calls	911/999	Entering this feature code selects an outgoing trunk and automatically dials the programmed emergency number (defaults to Trunk Group 1 and 911).
Outgoing Call	8	Selects an outgoing trunk according to the programmed outgoing access mode for that endpoint. (Inter-Tel endpoints use the OUTGOING button or a Call button.)

Endpoint Feature Codes

The following pages list the general feature codes. When a default feature button can be used in place of the feature code, it is indicated at the end of the explanation. Refer to page 71 for a listing of the default endpoint feature buttons.

Table 18. *Endpoint Feature Code Definitions*

FEATURE NAME	CODE	DEFINITION
Account Code – All Calls Following	391	Allows the endpoint user to enter a forced or optional account code that will apply to all calls following the entry of this feature code and will appear in the SMDR. To disable the All Calls Following feature, the feature code is entered again without an account code.
Account Code – Optional	390	Allows the endpoint user to enter an optional account code for SMDR reports during an outside call.
ACD Agent Login ACD Agent Logout ACD Agent Login/Logout Toggle	326 327 328	These feature codes allow an ACD hunt group member (agent) to log into and out of the ACD hunt group(s). The agent will only receive calls through the ACD hunt group(s) while logged in.
ACD Agent Wrap-Up Terminate	329	When an ACD agent completes a call, no other ACD hunt group call will ring at the endpoint until the ACD Wrap-Up Timer expires or the agent enters this feature code to terminate the wrap-up session.
Agent Help	375	The Agent Help feature allows a endpoint user to request help from a designated “Agent Help Extension” during a two- or three-party call.
Agent Help Reject	376	When a request-for-help call rings, the Agent Help Extension can choose to join the call or enter this feature code to reject the request.
Answer (Ringing Call)	351	Answers the call that has been ringing or holding the longest at that endpoint. Refer to page 124 for the priority list. (Inter-Tel endpoints use the ANSWER button.)
Audio Diagnostics	320	When initiated, users are prompted to answer questions about the audio problems by pressing specific keypad buttons.
Automatic CO Access On/Off	360	*(Inter-Tel endpoints Only)* Allows the endpoint user to determine how ringing outside calls will be answered: simply by lifting the handset or pressing the Speaker button (automatic answer), or by lifting the handset or pressing the Speaker button and pressing a Call button, individual trunk button or the ANSWER button.
Automatic IC Access On/Off	361	*(Inter-Tel endpoints Only)* Allows the endpoint user to determine how ringing intercom calls will be answered: simply by lifting the handset (automatic answer), or by lifting the handset and pressing the IC button (or a Call button, if there is no IC button).
Automatic Trunk Answer	350	Using this feature code, endpoint users with allowed answer can pick up trunks that are ringing into the system, but that are not actually ringing at their endpoints. This feature does not pick up transferred calls or recalls that are ringing at the endpoint.
Background Music On/Off	313	*(Inter-Tel endpoints Only)* Turns on and off background music heard through the endpoint speaker.
Barge-In	386	Allows the supervisor to barge-in on a call to help the hunt group member/agent.
Call Forward All Calls	355	Immediately forwards all calls to another endpoint or to an outside endpoint number. (Inter-Tel endpoints use the FWD button.)

Table 18. *Endpoint Feature Code Definitions(Continued)*

FEATURE NAME	CODE	DEFINITION
Call Forward If Busy	357	Immediately forwards all calls to another endpoint or to an outside endpoint number when the endpoint is in use.
Call Forward If No Answer	356	Forwards all calls to another endpoint or to an outside endpoint number if not answered within a predetermined time.
Call Forward If No Answer/Busy	358	Forwards all calls to another endpoint or to an outside endpoint number if not answered within a predetermined amount of time, or immediately if the endpoint is in use.
Change Language	301	An endpoint user can change the assigned language for the endpoint by entering the Change Language feature code while the endpoint is idle.
CO Hookflash	330	Sends a timed hookflash over the trunk while on an outside call (includes conference calls).
Conference	5	Connects from three to four parties in a conference. A conference consists of any combination of inside and outside parties. (Inter-Tel endpoints use the CNF button.)
Data	340	*(Inter-Tel endpoints Only)* Allows operation of a data device attached to an endpoint that has a PC Data Port Module and a Modem Data Port Module (also requires a modem-equipped data device).
Default Endpoint	394	This single feature code cancels account codes for all calls following, Do-Not-Disturb, manual call forwarding, background music, ring intercom always, and queue requests; restores handsfree mode, pages, hunt group calls, and system forwarding; and returns endpoint volumes to default values.
Directories	307	*(Display endpoints Only)* Allows display endpoint users to search for extension numbers or System Speed Dial numbers. The number can then be dialed, if desired.
Display Outside Party Name On/Off	379	*(Display endpoints Only)* When the endpoint user enters this feature code, while connected to a CO call that has outside party name information, the display will toggle between the caller's name and number. If there is no outside party name or the Expanded CO Call Information On Displays flag is disabled, the user will hear a burst of reorder tone and see the CANNOT ACCESS FEATURE display. If the Display Outside Party Name On/Off feature code is programmed in a user programmable button with a lamp, the lamp will be lit when the outside party name is enabled and off when the outside party number is enabled.
Display Time/Date (ITP) Show IP Address (SIP)	300	*(Display endpoints Only)* Temporarily displays the system date and time, username, and extension number during a call or when other displays are shown. Feature code 300 displays the IP Address of an endpoint if it is in SIP mode (see page 80).
Do-Not-Disturb Do-Not-Disturb Cancel Do-Not-Disturb On/Off	370 371 372	The Do-Not-Disturb feature code halts all intercom calls, transferred calls, and pages to the endpoint. The Cancel code returns the endpoint to normal operation. The on/off code can be used to turn Do-Not-Disturb on or off. (Inter-Tel endpoints use the DND button.)

Table 18. *Endpoint Feature Code Definitions(Continued)*

FEATURE NAME	CODE	DEFINITION
Do-Not-Disturb Override	373	*(Inter-Tel endpoints Only)* If enabled in the database, allows the endpoint user to break through another endpoint's Do-Not-Disturb mode when placing an intercom call
Feature Key Default	395	*(Inter-Tel endpoints Only)* endpoints have user-programmable feature buttons that can be set to enter feature codes. This code returns the user-programmable buttons to the database default values.
Group Listen	312	*(Inter-Tel endpoints Only)* Allows a user to transmit a conversation over the endpoint speaker while in handset or headset mode
Handsfree On/Off	319	*(Inter-Tel endpoints Only)* Disables/enables the endpoint's handsfree intercom answering. Incoming intercom calls ring as private calls if handsfree answering is disabled.
Headset Enable Headset Disable Headset On/Off	315 316 317	*(Inter-Tel endpoints Only)* The enable code signals the system that a headset has been connected to the endpoint. The disable code returns the endpoint to normal operation. The on/off feature code can be used to toggle the feature on or off.
Hold – Individual	336	Places a call on hold so that it can be picked up directly at that endpoint or through a reverse transfer from any other endpoint. (Inter-Tel endpoints use the HOLD button.)
Hold – System	335	Places an outside call on system hold. It can be picked up directly at any endpoint that has an individual trunk button and has allowed-answer and/or outgoing access for that trunk, or by the endpoint that placed it on hold. (If used on conference or intercom calls, the system places the call on individual hold.)
Hunt Group Remove Hunt Group Replace Hunt Group Remove/Replace	322 323 324	Removes the endpoint from its assigned hunt group(s) or places it in again. Does not affect non-hunt group calls. The remove/replace feature code can be used to toggle the feature.
LCD Contrast Adjustment	303	*(Model 8620, 8622, 8660, or 8662)* Adjusts the LCD contrast on the display. The endpoint must be idle to use this feature.
Message	365	This feature code is used for leaving and retrieving a message waiting indication at a called endpoint or the called endpoint's message center. Depending on how the message was left, the called endpoint user either retrieves the message from his/her message center or from the endpoint that left the message. (Inter-Tel endpoints use the MSG button.)
Message – Cancel	366	Allows the endpoint user to cancel a message waiting indication that he or she left at another endpoint.
Message – Cancel Current	368	Cancels a message waiting indication that is waiting at the endpoint without requiring the user to respond to it. (Inter-Tel endpoints can use the asterisk [*] button while viewing the message.)
Message – Silent	367	Leaves a message waiting indication at a endpoint without first placing an intercom call.
Mute On/Off	314	*(Inter-Tel endpoints Only)* Turns the microphone on or off during a call. If muted, the endpoint user can hear the other party, but the party cannot hear the endpoint user. (Inter-Tel endpoints can also use the MUTE button.)

Table 18. *Endpoint Feature Code Definitions(Continued)*

FEATURE NAME	CODE	DEFINITION
Page	7	When followed by a paging zone code (0–9 or 0–49), it allows announcements to be made through endpoint speakers and any external paging speakers in the page zone.
Page On/Off	325	*(Inter-Tel endpoints Only)* Halts pages through the endpoint speaker or allows them to be received again.
Program Buttons	397	*(Inter-Tel endpoints Only)* User-programmable feature buttons and Station Speed Dial buttons can be programmed using this feature code.
Program Endpoint Password	392	The endpoint password is used for the Remote Programming feature. The password can be changed by entering the Program Endpoint Password feature code at the endpoint or when using the Remote Programming feature.
Queue Request	6	Requests (or cancels) an automatic callback when a busy trunk or endpoint becomes available.
Record-A-Call	385	If the system is programmed with a Record-A-Call application, the endpoints can be programmed to use the Record-A-Call feature. It allows users to enter a feature code whenever they want to record an ongoing call in their designated Record-A-Call mailbox. Users can retrieve the recorded messages later, just as they would any other mailbox messages.
Redial	380	Redials the last outside phone number dialed or saved at the endpoint (up to 48 digits). Also used to save numbers at endpoints programmed for last number saved. (Inter-Tel endpoints use the REDIAL button.)
Redirect Call	331	This feature allows the endpoint user to route ringing outside, intercom, and camped on calls to another endpoint, hunt group, or outside number. Routing of the redirected call is still subject to trunk and toll restrictions. This feature provides these options in addition to the currently available options which allow the endpoint user to redirect calls to Voice Mail or Do-Not-Disturb. The Redirect Ringing Call feature does not require any premium features.
Reminder Message Reminder Message Cancel	305 306	*(Inter-Tel endpoints Only)* The endpoint user can set reminder messages that signal the endpoint at specific times. Or, the user can cancel all reminder messages for the endpoint.
Remote Programming	359	Allows a user to place an endpoint in DND mode, forward the endpoint's calls, or change the password; either from another endpoint or through DISA.
Reverse Transfer (Call Pick-Up)	4	Picks up a call ringing or holding at an endpoint or hunt group
Review Keys	396	*(Inter-Tel endpoints Only)* User-programmable feature buttons and Station Speed Dial buttons can be viewed using this feature code.
Ring Intercom Always On/Off	377	Enables/disables the feature that allows the endpoint to always place private (non-handsfree) intercom calls.
Ring Tone Selection	398	*(Inter-Tel endpoints Only)* Selects the type of ringing alert tone that will be heard from the endpoint.
Routing Off	304	Disables System OAI Offering Control for third-party applications. (This feature requires you to enter a password.) Once you disable routing, you cannot enable it again (i.e., only the third-party application can enable routing).

Table 18. *Endpoint Feature Code Definitions(Continued)*

FEATURE NAME	CODE	DEFINITION
Station Monitor	321	*(Hunt Group Supervisors Only)* Allows a designated hunt group supervisor to monitor a call of anyone in the associated hunt group.
Station Speed Dial Station Speed Dial Programming	382 383	Dials/programs one of the 10 Station Speed Dial numbers when followed by a location code (0–9). (Inter-Tel endpoints use the Station Speed Dial button plus a location code for programming and dialing, or they can program Speed Dial buttons for one-button dialing.)
Steal	387	Allows the supervisor to take away a call from the hunt group member/agent.
Switch Keymap	399	*(Inter-Tel endpoints Only)* This allows an endpoint user to switch between standard and alternate keymaps.
System Forward Enable System Forward Disable System Forward On/Off	352 353 354	Enables or disables the database-programmed System Forwarding feature for this endpoint. The on/off feature code can be used to toggle the feature on or off.
System Speed Dial	381	Dials one of the 1000 System Speed Dial phone numbers when followed by a location code (000-999). Also used for reviewing System Speed Dial numbers. (Inter-Tel endpoints use the SYS SPD button.)
Transfer to Hold	346	Transfers a call to another endpoint and places it on individual hold so that it does not ring or send call waiting signals until it recalls.
Transfer to Ring	345	Transfers a call to another endpoint or to an outside phone number. (Inter-Tel endpoints use the TRANSFER button.)

Administrator Feature Codes

The following feature codes may be used only at designated Administrator endpoints. Non-Administrator endpoint users hear reorder tones if they attempt to use these feature codes.

Table 19. *Administrator Feature Code Definitions*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Clear Network Alarm	9851	Clears network-wide alarms on every node in the network, but will not affect system alarms. The Clear Network Alarm feature code may be entered on any node in the network, but the Send Network Alarms flag must be set for the administrator to clear alarms on other nodes in the network.
Clear System Alarm	9850	Clears all local and network-wide system alarm displays on your node.
Diagnostics On/Off	9900/9100	Enables or disables system diagnostics mode to perform diagnostics functions such as freezing/unfreezing the database, printing message logs, and seizing a device for troubleshooting purposes. **NOTE:** Because diagnostics mode affects system performance, it is recommended that you run the diagnostics program when the system is idle.
Enable Network Day	9862	Places any or all remote nodes into day mode (you are prompted for the node number).
Enable Network Night	9861	Places any or all remote nodes into night mode (you are prompted for the node number).

Table 19. *Administrator Feature Code Definitions(Continued)*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Modem Disable	9867	Disables the internal modem; used in conjunction with the assigned extension number of the modem.
Modem Enable	9866	Enables the internal modem; used in conjunction with the assigned extension number of the modem.
Modem Reset	9869	Resets the internal modem; used when the modem fails to answer an incoming call or to synchronize with an external modem. **CAUTION**: database corruption could occur if the modem is reset during a database programming session. Inter-Tel recommends that you assign the modem extension to a Speed Dial button.
Night Ring On/Off	9860	Places system in night mode or cancels night mode.
Periodic Diagnostics On/Off	9825	Periodic diagnostics extends and improves the functionality and checks and reconciliations performed on various resources in the system.
Program System Speed Dial	9801	Programs system-wide Speed Dial numbers when followed by location codes (000-999).
Set Network Date/Time	9810	Programs the time and date for all nodes in the system. (Local time and date can also be reset by individual nodes.)
Set Time/Date	9800	Programs system time and date
Synchronize Network Time	9811	Synchronizes the minutes past the hour across the network. **NOTE**: If a node's time is off by more than 30 minutes, synchronizing the minutes may cause the hour to change. Also, network time is automatically synchronized every day at 12:30 AM (00:30), using the time setting on the node with the lowest number.

Diagnostics Feature Codes

The Diagnostics Mode feature code (9900) must be entered at the Administrator's endpoint to enable system diagnostic mode before the following feature codes can be used.

Table 20. *Diagnostics Feature Code Definitions*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Compression On/Off	9982/9182	Compresses call processing messages sent to Database Programming, speeding up transfers. You should not disable this feature unless instructed to do so by Inter-Tel personnel.
Compression Statistics	9981/9181	Dumps various statistics related to the Database Programming compression algorithm. This feature should be used only when directed to do so by Inter-Tel personnel.
Diagnostic - ASAI Snoop Off	9926/9126	This feature code turns off the ASAI output to Message Print. ASAI is the protocol the system uses to talk to Database Programming and the AVDAP. Turning this feature on helps the Inter-Tel Engineers debug the messaging between Call Processing and Database Programming or Call Processing and the AVDAP.
Diagnostic - ASAI Snoop On	9927/9127	This feature code turns on the ASAI output to Message Print. ASAI is the protocol the system uses to talk to Database Programming and the voice processing system. Turning this feature on helps the Inter-Tel Engineers debug the messaging between Call Processing and Database Programming or Call Processing and the AVDAP.

Table 20. *Diagnostics Feature Code Definitions(Continued)*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Diagnostic - Dump Extension	9922/9122	Allows an Inter-Tel field technician to dump a device or structure when debugging a problem. The system dumps the internal data structures for that extension to message print. If you press the pound button (#) you are prompted for a command. The command allows you to enter an alphanumeric string of the structure to dump.
Diagnostic - Dump Node Information	9936/9136	The user can easily dump node information to Message Print using a single feature code. Pressing the Dump Node Information feature code dumps specified node information to Message Print for diagnostic purpose. When the system prompts for a node number, enter the desired node number or zero (0) for all nodes within a network. If the node does not exist, an error message saying INVALID NODE NUMBER appears and prompt the user for a node number again. After entering a node number, the system displays a confirmation message on the endpoint display. This helps for the user to analyze which nodes are up and which nodes are down (the word 'down' does not mean that the node is completely down, it simply means the node is unreachable). For Example: If all nodes are up, the display shows ALL NODES ARE UP X. The 'X' represents the total number of the nodes. If node 3 and 5 of a 5-node network are down, the display shows # NODES DOWN 2 3 5.
Diagnostic - Dump System Diagnostics	9933/9133	Allow a System Administrator to dump system diagnostic information to Message Print.
Diagnostic - Heap Dump	9943/9143	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Heap Statistics	9947/9147	This feature code outputs miscellaneous heap information to Message Print as well as putting up a message on the endpoint that indicates the percentage of available dynamic heap memory. This feature code is useful in determining if the system is losing heap memory and how quickly the system may be losing it.
Diagnostic - ISDN View	9948/9148	This feature code is toggles through the three different ISDN view output modes. Entering the feature code the first time puts the ISDN view feature into headers only mode. In this mode the system outputs all ISDN messages to message print in header format (i.e., it does not contain any ISDN information elements). Entering the feature code the second time puts the ISDN view feature into full mode. In this mode the system outputs all ISDN message to message print in full format (i.e., each ISDN information element). Entering the feature code one more time turns this feature off.
Diagnostic - Major Reset	9962/9162	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.

Table 20. *Diagnostics Feature Code Definitions(Continued)*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Diagnostic - Mark As Leaks	9945/9145	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Mark As Quiescent	9946/9146	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Minor Reset	9964/9164	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Network Freeze Zone System Histories Diagnostic - Network Unfreeze Zone System Histories	9939/9139 9989/9189	The system fault history for any freeze zone in the network can be halted (frozen) or re-enabled using these feature codes when diagnostics mode is enabled. The fault history can then be extracted from each zone and used by service personnel when troubleshooting the system.
Diagnostic - Network Groups	9963/9163)	Allows an administrator to verify that the Network Groups on the local node are programmed properly. When 9963 is entered at an administrator's endpoint, the telephone system initiates pings from each Inter-Tel IP device on the local node and determines if the other devices respond to the ping. If a device does not respond to the ping or if a firewall is detected, the system issues a Message Print message.
Diagnostic - Print Auxdata	9972/9172	(Not Programmable) Sends a report to a designated printer or file that shows system reset history information to be used for troubleshooting purposes.
Diagnostic - Print Message Log	9975/9175	(Not Programmable) Sends a report to a designated printer or file that lists system error messages to be used for troubleshooting purposes.
Diagnostic - Print Network Log	9976/9176	This feature code prints the network log to message print. This feature is useful in determining the system of a networked system.
Diagnostic - Query Node Traffic	9978/9178	Using this feature code you can query the status of various devices on the system based on the status of the traffic flags in Database Programming. The output is sent to Message Print.
Diagnostic - Show Version	9928/9128	To check the call processing software version at an administrator's endpoint, you can enable diagnostics mode, then enter this feature code to view the version and date of the call processing software. However, feature code 9928 displays the firmware version of the endpoint if it is in SIP mode (see page 84).
Diagnostic - SIP View	9987/9187	Allows the user to change the system wide SIP output value. Options include No Output, Headers and Full Output.
Diagnostic - Spare 1-3	9910-9912/ 9110-9112	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - System History	9974/9174	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - View Displays	9983/9183	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Program Database	9932/9132	Can be used for programming endpoint, system, and trunk parameters.

Table 20. *Diagnostics Feature Code Definitions(Continued)*

FEATURE NAME	CODE (US/ EUROPE)	DEFINITION
Seize Device	9973/9173	Used during troubleshooting to seize a specific trunk or endpoint by indicating the board number, port number, and device number.
System History — Freeze System History — Unfreeze	9993/9193 9998/9198	The system fault history can be halted (frozen) or re-enabled using these feature codes when diagnostics mode is enabled. Fault history is used by service personnel when troubleshooting the system

Extension Numbers

Extension numbers are recognized as feature codes by the system. When the system is in the default state, the extension numbers are assigned as follows:

Table 21. *Default Extension Numbers*

FUNCTION	NUMBER
Attendant	0
Endpoints	1000–1999
Hunt groups 1-75	2000–2074 or 2000–2299
Voice Processing System Applications	2500–2999
Page Zones	9600–9609 or 9600–9649 (Used only for programming a feature button to select a page zone.)
External Page Ports	91000–91003
Individual Trunks	94000–95999 (Determined by the bay and device number. Used for programming and troubleshooting.)

Attendant Endpoints

Attendant endpoints can be called by dialing 0 at the endpoints they serve. Usually, they are also programmed to provide these services:

- Central operators for incoming calls
- Message centers
- Recall endpoints for unanswered calls

Any endpoint can be designated as an Attendant endpoint during database programming. Attendant endpoints should be equipped with display endpoints to show recall sources.

A hunt group can be assigned to serve as an Attendant. However, the individual endpoints in the hunt group are not required to be programmed as Attendant endpoints, and the database will not reflect that the individual endpoints serve as an Attendant for any other endpoints. (This feature is especially useful when a Voice Mail hunt group is assigned as an Attendant.)

NOTE For information on Automated Attendants, see page 221 in the “Voice Processing Features” section of this guide.

Network and Local Primary Attendants

One Attendant can be designated as the primary Attendant who can receive unsupervised outside call recalls, hunt group recalls, and calls that cannot be matched to patterns in call routing tables.

When Inter-Tel CS-5200/5400 Communication Server is installed in a network, there are two types of primary Attendants:

- **Node Attendants:** There can be a primary Attendant for each node.
- **Network Primary Attendant:** There can be a network primary Attendant programmed on each node. (There is usually one Network Primary Attendant shared by all of the nodes.) When the network needs to direct a call to an Attendant, it attempts to direct the call to the network primary Attendant first. If the network primary Attendant is unavailable, it directs the call to the Attendant on the node where the call originated.

If there is not a network or local primary Attendant, calls that would normally go to the primary Attendant (as described above) are handled as follows:

- If the system has seized the call, but it has not been sent to an endpoint, it is disconnected.
- If the call has been sent to an endpoint, it remains at the endpoint and rings until answered.
- If the call is not seized and not sent to an endpoint, the caller will hear ringing until he or she hangs up. The call will not ring at any endpoint.

One-Attendant or Multiple-Attendant Operation

Each node can be set up with one Attendant or several Attendants, as follows:

- **One Attendant:** One Attendant provides all of the Attendant services listed on the preceding page. All trunks (except private trunks) are usually programmed to ring in at this Attendant's endpoint.
- **Multiple Attendants:** Any or all endpoints can be programmed as Attendants. (For example, there may be one or more Attendants to serve each department in a business.) Trunks are programmed to ring at any or all Attendant endpoints. Multiple Attendants can be arranged in a hierarchy. That is, one Attendant may be the Attendant for another. In this case, the "serving" Attendant is reached by dialing 0 at the "served" Attendant.

Attendant Recall

When a call is placed on hold or is transferred from one endpoint to another, the Hold and Transfer timers limit the amount of time the call may remain unattended. After that time, the call recalls the endpoint that transferred it or placed it on hold, and the Recall timer is started. If the call remains unanswered at the endpoint until the Recall timer expires, it recalls the endpoint's Attendant and the Abandoned Call timer starts. (If there is no Attendant, the call continues to recall at the endpoint that transferred it or placed it on hold.) If the Attendant endpoint is busy, the call camps on and the display shows the source of the recall. If the call is not answered before the Abandoned Call timer expires, the system disconnects the call.

If an Attendant endpoint transfers a call and it is not answered before the Attendant Transfer timer expires, it will recall the Attendant endpoint.

If an endpoint user transfers or forwards an outside call to an outside phone number, it becomes an "unsupervised" CO-to-CO call because no inside parties are involved. The CO-to-CO call is limited by the Unsupervised CO timer. When the timer expires, the call recalls the primary Attendant endpoint and causes the CNF button to flash. (Display endpoints show UNSUPERVISED CNF RECALL.) This serves two purposes:

- It allows the Attendant to monitor the length of CO-to-CO calls. When a CO-to-CO call recalls, the Attendant can disconnect the call or allow it to continue.
- If the callers hang up before the Attendant receives the recall, the system may not have disconnected the trunks because a disconnect was not received from the central office. The Attendant must disconnect the call.

When a recall rings at the Attendant's endpoint, a Call or individual trunk button flashes at the medium rate.

If the Attendant has calls forwarded, recalls from endpoints follow internal call forward requests. Recalls do not forward to outside phone numbers, but recall the Attendant's endpoint until they are answered or the Abandoned Call timer expires. Placing the Attendant's endpoint in Do-Not-Disturb does not block recalls or direct ring-in calls.

If there is not a primary Attendant, recalls remain at the endpoints and ring until answered or disconnected by the system.

To answer a hold or transfer recall at an Attendant endpoint:

When you see a hold or transfer recall display (XXXX RCL FROM YYYY) and hear a recall ringing:

1. ***If desired,*** lift the handset.
2. **Outside call recall:** Press the medium-flashing Call button or individual trunk button. Or, press the ANSWER button. (If more than one trunk is recalling, pressing the ANSWER button selects the outside call indicated on the display.)

   Intercom call recall: Press the IC button or the **ANSWER** menu button. (If you are busy when the intercom call recalls, it will camp on. The IC button flashes at the medium rate, but you do not hear recall ring signals.)

   Conference call recall: Press the flashing CNF button to connect with the conference call. The CNF button flashes slowly and the display shows CONFERENCE IN PROGRESS. ***If the parties are still talking,*** press the CNF button again and hang up to return the parties to their conversation. The CNF button flutters. You can enter the conference at any time by pressing the fluttering CNF button. If the Hold timer expires, the conference recalls your endpoint again. ***If the parties have hung up,*** hang up to disconnect the call.

Hunt Groups

The Hunt Group feature permits calls to be placed to a group of endpoints and to be automatically transferred to an available endpoint within the group. Up to 75 hunt groups can be programmed in the database. Hunt group lists can contain individual endpoints and/or extension lists. Non-ACD hunt group endpoints must reside on the same node; off-node devices must be ACD hunt group members.

The order in which hunt group endpoints receive incoming calls is determined by a list stored in the database. An endpoint or extension list can appear in a single hunt group more than once, and it can appear in multiple hunt group lists, if desired.

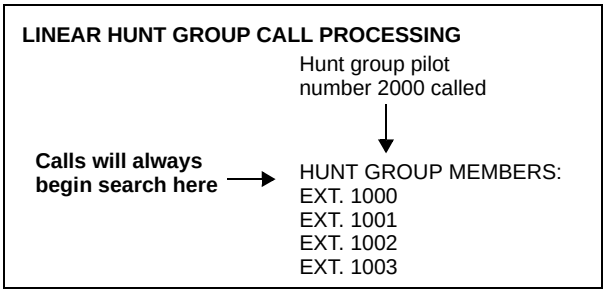
Hunt groups have their own extension numbers (defaults to 2000–2074). Individual endpoints within the hunt group can be called using their assigned extension numbers.

Two other hunt group types are also available: UCD Hunt Groups and ACD Hunt Groups, which is a premium feature. For UCD information, refer to page 107. For ACD, refer to page 113.

Hunt Group Call Distribution

When an intercom or outside call is transferred or rings in to the pilot number, it circulates through the hunt group in linear or distributed order until answered, as described below.

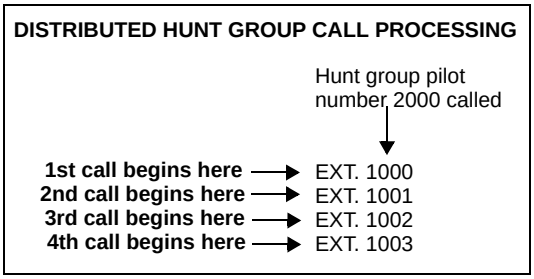
- **Linear order:** Incoming calls always start circulating by ringing at the first endpoint (or extension list) on the hunt group list that is stored in the database.



Distributed order: To even out the call load, distributed order shifts the starting point of each call. When an endpoint user receives a call, the next endpoint or extension list in the hunt group receives the next incoming call. If the receiving endpoint is busy (or all endpoints in the extension list are busy), or if there is no answer before the No Answer Advance timer expires, the call goes to the next endpoint or extension list on the hunt group list.

NOTE See page 113 for information on the additional distribution types available in ACD hunt groups.

If an extension list is included in a hunt group, a call will ring all endpoints on the extension list when it reaches that point in the hunt group list. Therefore, to create an "all ring" type of hunt group, you can program the hunt group as either linear or distributed and then assign an extension list as the only hunt group member.



Hunt Group Call Processing

Hunt group endpoints receive the following indications when a call is ringing in:

- If an outside call is ringing, the endpoint designated to receive the call first shows ring flash on the associated individual trunk button (if it has one) ***or*** a Call button until the

call is answered or the No Answer Advance timer expires and the call moves to the next endpoint.

- If hunt group camp on is allowed and all endpoints on the hunt group list are unavailable (busy, in Do-Not-Disturb, or with hunt group remove enabled), an intercom or outside call will camp on and the endpoints will receive the following indications:
  - ***Busy endpoints*** receive hunt group camp-on tones (if enabled) and display. If there is an individual trunk button associated with the trunk, it shows ring flash. (There is a programmable endpoint flag that can disable the camp-on tones for hunt group calls.)
  - ***Endpoints with Hunt Group Remove enabled*** receive camp-on tones and display. If there is an individual trunk button associated with the trunk, it shows ring flash.
  - ***Endpoints with Do-Not-Disturb enabled*** receive no camp on indications, but if there is an individual trunk button associated with the trunk, it shows ring flash.
  - ***The first endpoint that becomes available*** receives ringing and a flashing trunk or Call button. The camp-on and ring flash indications end at the other endpoints. (The associated trunk button will be steadily lit at those endpoints to show that the trunk is busy.)
- If hunt group camp on is ***not*** allowed, and all endpoints on the hunt group list are unavailable, the hunt group members will not have any camp-on indications. Callers will hear one of the following:
  - ***Intercom callers*** will hear busy signals.
  - ***Callers on a trunk not needed to return busy signal*** (such as a T1 E&M) will hear busy signals.
  - ***Callers on a trunk needed to return busy signal*** (such as a non-T1 loop-start) will hear ringing, and the call will be sent to the primary Attendant.
  - ***ISDN callers*** hear busy signals.

Endpoints within the hunt group can receive direct trunk ring-in, intercom, forwarded, or transferred calls to their extension numbers without affecting other endpoints in the hunt group.

Hunt Groups and Call Forwarding

Hunt group programming affects the Call Forwarding feature in the following ways:

- **Hunt group calls follow unconditional forward:** If an endpoint in a hunt group is in the unconditional call forward mode to another endpoint, calls to the hunt group will follow the endpoint forwarding request. A forwarded hunt group call will ring at the forwarding destination until the No Answer Advance timer expires. If it is not answered before the timer expires, the call will return to the hunt group and continue circulating through the hunt group list.
- **Conditional forward dependent on timer interaction:** Endpoints that are busy and have their calls forwarded conditionally (no answer, busy, or unavailable) to another endpoint will receive the hunt group call (if the endpoint is not busy) until the Forward No Answer timer expires. At this point, if the hunt group's No Answer Advance timer has not expired, then the call will be forwarded. Once the No Answer Advance timer expires, the call will circulate to the next endpoint in the hunt group list.
- **Hunt group calls will not forward to some destinations:** Hunt group calls will not forward to Voice Mail, outside numbers, or system forwarding paths.
- **Announcement and overflow endpoints can forward hunt group calls:** If an announcement or overflow endpoint has call forward enabled, hunt group calls will follow the forward and the forwarding destination endpoint will act as the announcement or overflow endpoint.

- **Hunt groups can receive forwarded calls:** Endpoints can forward calls to a hunt group's pilot number.

Hunt groups can be assigned as message centers and/or alternate message sources for individual endpoints.

Hunt Group Remove/Replace and Do-Not-Disturb

Hunt group members can temporarily stop hunt group calls from ringing at their endpoints by entering the Hunt Group Remove feature code as described below. (If an endpoint is assigned to more than one hunt group, this halts calls from all hunt groups. Hunt group assignments cannot be removed individually.) Do-Not-Disturb can also be used to halt hunt group and other calls to the endpoint (see page 200 for details).

NOTE This feature has no effect on ACD hunt groups. See page 115 for ACD login/logout information.

When the Hunt Group Remove feature is enabled, the user will still receive the Camp On display and tone, and the individual trunk button flashes, if one exists, for calls to the hunt group. The endpoint continues to receive calls placed to its extension number. Hunt group overflow and announcement stations cannot block hunt group calls using this feature.

If an endpoint user has programmed a button for entering the Hunt Group Remove/Replace feature code, and if that button has a lamp, the lamp will be lit whenever the endpoint is removed from the hunt group.

To remove the endpoint from its hunt group(s) or replace the endpoint in its hunt group(s):

Inter-Tel endpoints: While on- or off-hook, enter the Hunt Group Remove feature code (322) to halt hunt group calls or enter the Hunt Group Replace feature code (323) to return the endpoint to its hunt group(s). Or, use the Hunt Group On/Off feature code (324) to toggle the hunt group mode on or off. You hear a confirmation tone, and the display shows ACCEPT (or DIVERT) HUNT GROUP CALLS. ***If off-hook,*** hang up.

Single line endpoints: Lift the handset and enter the Hunt Group Remove feature code (322) to halt hunt group calls or enter the Hunt Group Replace feature code (323) to return the endpoint to its hunt group(s). Or, use the Hunt Group On/Off feature code (324) to toggle the hunt group mode on or off. You hear dial tone.

UCD Hunt Groups

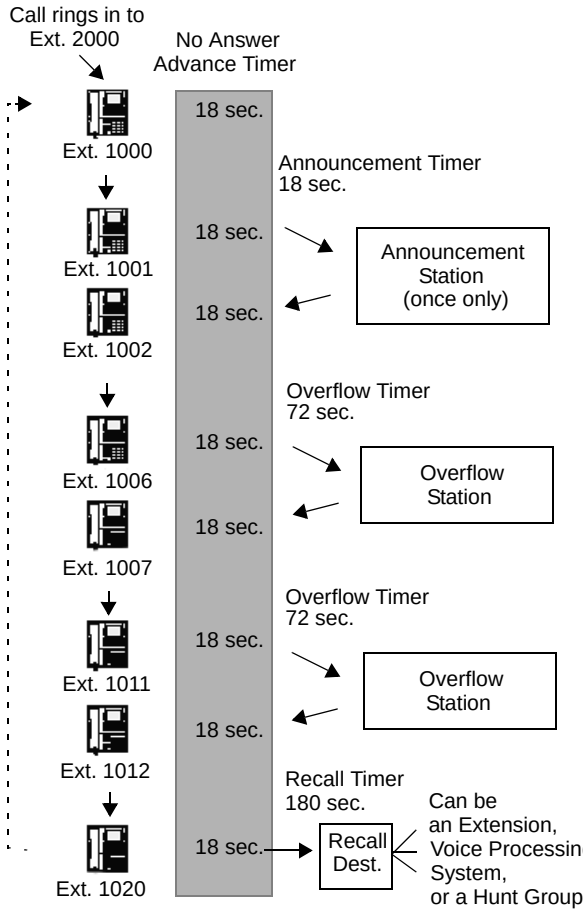
Uniform Call Distribution (UCD) hunt groups provide additional features to improve hunt group efficiency. The features added when UCD is enabled are as follows:

- Announcement and overflow endpoints pick up unanswered calls when the hunt group endpoints are busy.
- Hunt group priority ranking will place calls to one hunt group before another at endpoints that are members of more than one hunt group.
- Hunt group supervisors can monitor outside calls of any member of the hunt group.

Announcement and Overflow Stations

Announcement and overflow stations are individual endpoints that receive unanswered calls when all of the hunt group endpoints are unavailable. They are not usually included in the hunt group list. Announcement and overflow stations can be separate endpoints or they can be the same endpoint. Also, each of the hunt groups can have the same announcement and overflow stations or they can be assigned different endpoints. In a network, the announcement and overflow stations can be off-node devices.

Figure 5. *Announcement and Overflow Endpoints Example*



Announcement Endpoints: When a call rings in or is transferred to a hunt group, the Announcement and Recall timers are started. The incoming call circulates through the hunt group until it is answered or the Announcement timer expires. When this timer expires, the unanswered call is picked up by the designated announcement endpoint which is a playback device that answers the call and plays a message. Meanwhile, the call continues circulating through the hunt group (unless it was sent to a voice processing system application and then transferred to an endpoint). If it is answered by an available hunt group endpoint while the announcement station is connected to the call, the call will leave the announcement station. Each direct ring-in call will transfer to the announcement endpoint only once. If it remains unanswered when the Overflow timer expires, the call will be sent to the overflow station. Or, if there is no overflow station, the call will be sent to the recall destination endpoint when the Recall timer expires.

Overflow Endpoints: The Overflow timer is started when the Announcement timer expires or, if there is no announcement endpoint, when the call is received by the hunt group. If an incoming hunt group call is unanswered when the Overflow timer expires, the call is picked up by an overflow station. The overflow station is a playback device that answers the call and plays a message.

Meanwhile, the call continues circulating through the hunt group (unless it was sent to a voice processing system application and then transferred to a endpoint). If the call is answered by an available hunt group endpoint while the overflow station is connected to the call, the call will leave the overflow station. The Overflow timer restarts each time the unanswered call leaves the endpoint at the overflow station. An unanswered call will return to the overflow station

each time the Overflow timer expires, until the call is answered by a hunt group station or it is sent to the recall destination station.

The following table shows the path that an incoming hunt group call follows for possible combinations of announcement and overflow stations:

Table 22. *Incoming Hunt Group Call Paths*

ANNOUNCEMENT STATION	OVERFLOW STATION	CALL PATH
No	No	Call remains in hunt group.
Yes	No	Call goes to announcement endpoint only once, after Announcement timer expires.
No	Yes	Call goes to overflow endpoint after each expiration of Overflow timer.
Yes	Yes	Call goes to announcement endpoint once (after Announcement timer expires) then goes to overflow endpoint after each expiration of Overflow timer.

If an announcement or overflow station has Call Forward enabled, hunt group calls will follow the forward, and the forwarding destination endpoint will act as the announcement or overflow station.

Voice Processing System Applications as Announcement/Overflow Stations

When a voice processing system application is used as an announcement or overflow station, calls to the application automatically stop circulating through the hunt group if the caller selects a valid digit translation option (such as pressing a digit to select an extension from a Call Routing Announcement menu), and the call is transferred. This allows the application to send the call to other endpoints without the call being "pulled back" into the hunt group when a hunt group endpoint answers the call. However, if the caller does not dial a valid digit translation option, the call will be pulled back if a hunt group member answers.

A Call Routing Announcement application's message can be programmed to include the caller's queue position and/or estimated wait time. The queue position announcement tells the caller how many calls are ahead of his or her call. This includes calls being served and waiting calls (however, all calls being served count as one call). The estimated wait time is based on a programmed Average Connect Time Per Call multiplied by the number of calls ahead of the caller in the queue, divided by the number of available hunt group members (***avg. connect time per call*** × ***no. of waiting calls*** ÷ ***available members***). See page 228 for details.

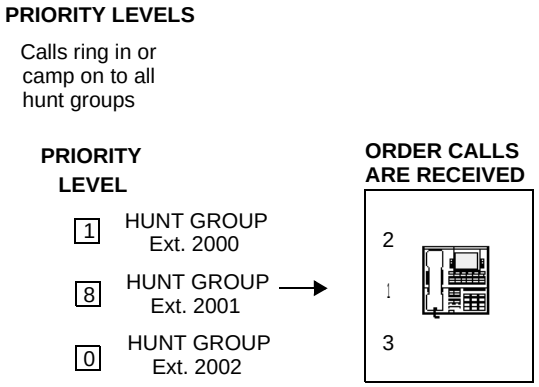
If a voice processing system application is used as an announcement or overflow endpoint or as the recall destination, and the system is unable to communicate with the voice processing system, outside calls will not be sent to the announcement or overflow application. They will continue to camp on to the hunt group.

UCD Hunt Group Priority List

Some endpoints may be members of more than one UCD hunt group. For this reason, hunt groups are assigned a "priority level." The priority level determines which hunt group's calls should be received first when calls ring in or camp on to several hunt groups at once.

UCD priority levels range from 0 (low) to 75 (high). If an endpoint is a member of multiple hunt groups that have the same priority level, calls received by those hunt groups will be queued in the order they were received by the telephone system. (Non-UCD hunt groups are treated as if they have a priority level of 0.)

Figure 6. *UCD Hunt Group Priority Levels*



UCD Hunt Group Supervisors and Station Monitoring

The Station Monitor feature allows hunt group supervisors to monitor the calls of anyone in a specified hunt group. It can be useful in training or in evaluating the performance of hunt group members.

NOTE As a courtesy, hunt group members should be notified in advance that their calls may be monitored. In addition, a programmable option can be enabled that sends a tone to the endpoint being monitored whenever the hunt group supervisor joins an ongoing call. (Note that call monitoring may be illegal in some locations. It is up to the end user to ensure that use of this feature is in compliance with local laws.)

In Database Programming, each hunt group can have one or more endpoints assigned as the hunt group supervisor(s). The supervisor must reside on the same node as the hunt group members. (An extension list can be assigned as the supervisor to provide multiple supervisors.) The supervisor is usually not a member of the hunt group. If the supervisor is a member of the hunt group, the Hunt Group Remove/Replace feature can be used at any time without affecting the Station Monitor ability. If desired, one endpoint can be assigned as the supervisor for more than one hunt group.

To monitor a hunt group member's call, the supervisor enters the Station Monitor feature code (321) and dials an extension number. The supervisor is then connected to the call and can hear both parties, but cannot be heard by either one. If the monitored call is terminated, transferred, or placed on hold by the hunt group member, the monitor function is terminated.

In the associated hunt group, the supervisor may monitor any active intercom or CO-to-intercom call (both hunting and non-hunting), including incoming, outgoing, and DISA-to-intercom calls. Conference calls and calls that do not involve hunt group members cannot be monitored.

If the supervisor attempts to monitor a endpoint that is not on an active call that allows monitoring, the system sends reorder tones, and the supervisor must enter the feature code again to try another number. If the supervisor attempts to monitor a non-hunt group or an idle endpoint in the hunt group, the system sends reorder tones and cancels the Endpoint Call Monitor feature.

Station monitoring requires conferencing circuits. If resources are not available when a supervisor attempts to monitor a endpoint, the supervisor's display will show NO CNF CIRCUITS AVAILABLE, and the monitor will not be allowed. Multiple supervisors can monitor the same endpoint, providing that a conference circuit is available for each supervisor.

The supervisor endpoint cannot use the Agent Help feature while monitoring a call.

NOTE Station Monitoring is not supported on an IP or SIP device engaged in a P2P call (see page 69).

To monitor a hunt group call (designated supervisor only):

1. **To use the speakerphone:** While on-hook, enter the Endpoint Call Monitoring feature code (321). You hear a confirmation tone and the Speaker button lights. The display shows ENTER EXT TO MONITOR.

   To use the handset: Lift the handset and enter the Endpoint Call Monitoring feature code (321). You hear a confirmation tone. The display shows ENTER EXT TO MONITOR.

2. Dial the extension number of the endpoint to be monitored. You are automatically connected to the call and the display shows MONITORING ***(username)***.
3. **To monitor another hunt group member's call:** Enter the Endpoint Call Monitoring feature code (321), and dial the extension number (or press the Speed Dial button).

   To terminate monitor: ***If off-hook,*** hang up. ***If on-hook,*** press the Speaker button.

Supervisor Barge-In

The Barge-In feature adds new functionality to the Station Monitor feature. When silent monitoring a call, the supervisor now has the following options:

- **Barge-In:** Allows the supervisor to barge-in on a call to help the hunt group member/agent (default feature code is 386).
- **Record:** Allows the supervisor to record the call to review it later (feature code 385). The supervisor may also hang up and continue to record the call until one of the parties on the call hangs up or puts the call on hold. The record option allows the supervisor to record several calls at once and have them delivered to his or her mailbox.
- **Steal:** Allows the supervisor to steal (take away) the call from the hunt group member/agent (default feature code is 387).
- **Join and Record:** *(For 6-line display endpoints only.)* Allows the supervisor to join and record the call simultaneously. This feature is useful if the supervisor wants to review the call later.

Supervisors must be monitoring a call before they can access any of the Barge-In features (barge-in, steal, record, or join and record). Like the Station Monitor feature, Barge-In requires conferencing circuits. If resources are not available when a supervisor attempts one of these features, the system sends reorder tones and the supervisor sees NO CNF CIRCUITS AVAILABLE on the display.

A silent monitor call is rejected if:

- A hunt group member/agent is on a conference call.
- The hunt group member/agent is on a peer-to-peer (P2P) call.
- A hunt group member/agent is getting agent help.
- Another supervisor has already joined the call.

When the above situations occur, the supervisor will see **SILENT MONITOR REJECTED** on the display.

NOTE The Barge-In/Silent-Monitor feature can be used across all Inter-Tel 5200/5400 nodes. The System Administrator can also now add off-node Endpoints as hunt-group supervisors.

Accessing the Barge-In Features

A supervisor may silent monitor a hunt-group member/agent if that supervisor is designated as a supervisor of the group to which the member/agent is logged in.

Three fields are associated with the Barge-In feature in DB Studio. These programmable fields control the Barge-In notification tone and display.

To monitor a call:

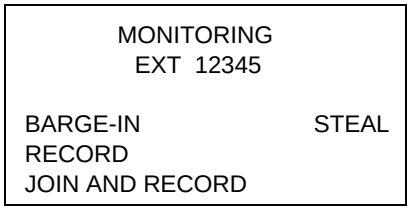
1. **To use the speakerphone: W**hile on-hook, enter the Station Monitor feature code (default is 321). After hear a confirmation tone, the Speaker button lights. The display shows ENTER EXT TO MONITOR.

   To use the handset: Lift the handset and enter the Station Monitoring feature code (default is 321). After a confirmation tone, ENTER EXT TO MONITOR is displayed.

2. Dial the extension number of the endpoint to be monitored. After automatically connecting to the call, the display shows MONITORING <*extension number*>.

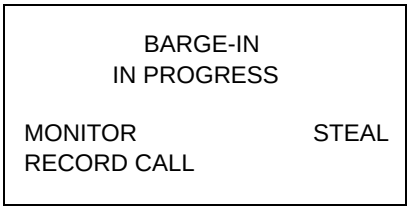
3. *While silent monitoring a call*, you have the following options:

   - Barge in on the call
   - Return to silently monitoring the call
   - Record the call.



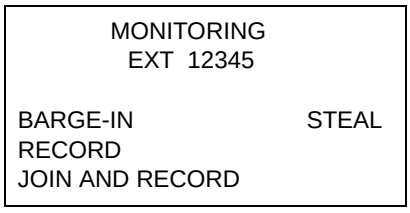
NOTE Only 6-line display endpoints have the menu buttons mentioned in these instructions. Users who have endpoints with a 2-line display, or no display, must use the feature codes to access the Barge-In features.

To barge in on a call: Press the **BARGE-IN** menu button or enter the feature code 386 (default). On display endpoints, the display shows BARGE-IN IN PROGRESS. While on a call, you can monitor, record, or steal the call by entering the appropriate feature code or by pressing the appropriate menu button.



To return to silently monitoring the call: *P*ress the feature code 386 (default) again or press the **MONITOR** menu button.

To record the call: Press the **RECORD** menu button or enter the Record-A-Call feature code (default is 385). On display endpoints, the display shows MONITORING <*extension number*>. While on a call, enter the appropriate feature code or press the appropriate menu button to monitor or steal the call.



To stop recording the call: Enter feature code 385 again or press the **STOP RECORDING** menu button.

To steal a call: press the **STEAL** menu button or enter the Steal feature code (default is 387). On display endpoints, the display shows CALL STOLEN FROM <*extension number*>. The hunt group member display shows CALL STOLEN BY <*extension number*>. When the supervisor steals a call, it becomes a regular call. While on the call, enter feature code 385 or press the **RECORD** menu button to record it.

Supervisor Display

CALL STOLEN
FROM EXT 12345

Hunt Group Member Display

CALL STOLEN
BY EXT 12345

To join and record a call: Press the **JOIN AND RECORD** menu button or enter the Join feature code (default is 386), followed by the Record-A-Call feature code (default is 385). On display endpoints, the display shows BARGE-IN IN PROGRESS. While on a call, the supervisor can monitor, stop recording, or steal the call by entering the appropriate feature code or press the appropriate menu button.

To stop recording the call: enter feature code 385 (default) again or press the **MONITOR** or **STOP RECORDING** menu button.

BARGE-IN
IN PROGRESS

MONITOR STEAL
STOP RECORDING

4. **To terminate any of the features:** *If off-hook*, hang up or enter the specific feature code of the feature you want to terminate. *If on-hook*, press the Speaker button or enter the specific feature code of the feature you want to terminate. On display endpoints, the display shows BARGE-IN TERMINATED or SILENT MONITOR TERMINATED (if you are silent monitoring at the time of termination).

BARGE-IN
TERMINATED

OR

SILENT MONITOR
TERMINATED

ACD Hunt Groups

NOTE The Automatic Call Distribution Hunt Groups premium feature is required to use ACD hunt group features.

Automatic Call Distribution (ACD) can be programmed to distribute hunt group calls to equalize call time or call count among the available members. If the System OAI Events premium feature is included in your software license, ACD hunt groups can also be programmed to send call information records that can be processed by an external device connected to a system serial port (such as Call Center Suite).

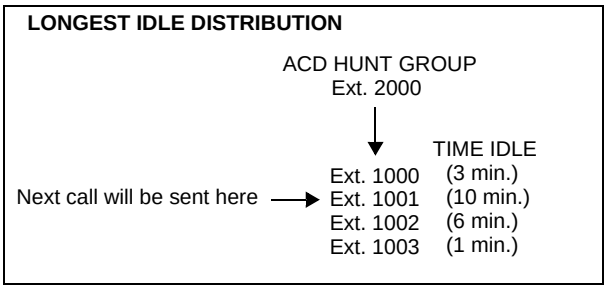
ACD hunt groups can use the standard hunt group features described on page 105, and/or the UCD features described on page 107.

ACD Call Distribution

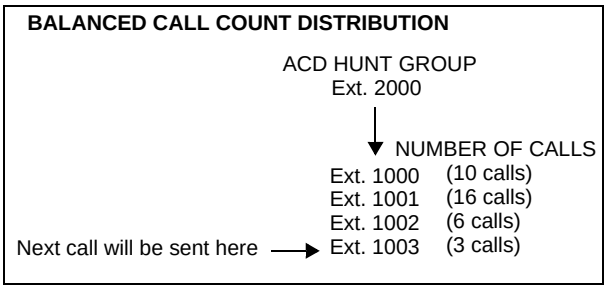
When an intercom or outside call is transferred or rings in to the ACD hunt group, it can circulate in linear or distributed order (as described on page 105) or using one of the following ACD distribution methods:.

NOTE The Restart ACD Idle Time Upon Login flag affects how the longest idle time is calculated. See page 117 for more information.

- **Longest Idle:** An incoming call is sent to the endpoint that has not been involved in a call to this hunt group for the longest period of time. (It does not count calls that were received through other hunt groups, direct ring-ins, or transfers.



- **Balanced Call Count:** To balance the call load, each incoming call is sent to the endpoint that has received the fewest calls through this hunt group. (It does not count calls that were received through other hunt groups, direct ring-ins, or transfers.)



NOTE When an agent logs in to a balanced call count ACD hunt group (or comes out of Do-Not-Disturb mode), the system checks the average call count for that ACD hunt group and assigns that average count to the endpoint logging in. This prevents the agent who is logging in from receiving all of the incoming calls until the call count of the lowest agent catches up with his call count. For example, if there are five agents logged in whose call counts are 5, 5, 5, 10, and 10, the average call count of 7 will be assigned to the next agent who logs in.

If an extension list is included in an ACD hunt group set for Longest Idle or Balanced Call Count distribution, it will treat each endpoint in the extension list as a separate agent; it will not ring all of the endpoints on the list at the same time. If the hunt group is set for linear or distributed order, a call will ring all endpoints on an extension list at the same time when the call reaches that point in the hunt group list.

ACD Agent IDs

ACD hunt group members are referred to as “agents.” Agents log in to the ACD hunt group to receive calls and log out to halt ACD hunt group calls. An ACD hunt group can be programmed to circulate calls to agents in two ways:

- **Agent IDs:** If the hunt group is programmed to use ACD Agent IDs, each agent is assigned an Agent ID number which he or she enters during the login procedure (described below). The hunt group calls are routed to logged in agents, according to their Agent ID number instead of their endpoint extension. Because the Agent ID is not associated with any endpoint extension, the agent can use any endpoint in the system to log in and does not have to use the same endpoint every time.

Members: If the hunt group **is not** programmed to use Agent IDs, it will have a list of endpoints and will send calls to the endpoints where agents are logged in.

NOTE For optimum system performance, there should not be more than 1000 Agent IDs in any hunt group and no more than 2000 Agent ID entries in all hunt groups combined.

ACD Agent IDs can be included in Extension Lists which allow several ACD Agents to receive a call at once.

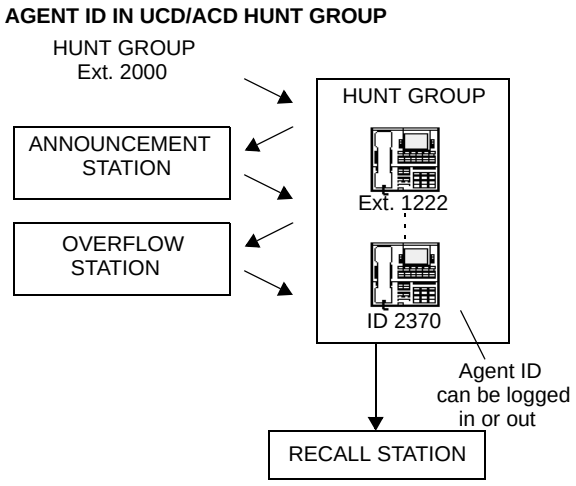
When a call camps on to an ACD hunt group that uses Agent IDs, only the agents currently logged in to the hunt group will receive camp-on indications. ACD hunt group supervisors will receive visual camp-on displays if they are programmed as members of the hunt group and have the ACD Agent Logout feature enabled.

ACD Agent Log In and Log Out

ACD hunt group members are referred to as "agents." Agents can log in to and out of the ACD hunt group at any time. While logged in, the agent will receive calls through the ACD hunt group. When the agent is logged out, calls to that ACD hunt group will bypass the endpoint. (The Hunt Group Remove/Replace feature, described on page 107, does not have any effect on ACD hunt group calls when entered by an ACD agent. However, placing the agent's endpoint in Do-Not-Disturb will halt all ACD and non-ACD hunt group calls.)

The following diagram illustrates how the Agent ID is used to log in or log out.

Figure 7. *ACD Hunt Group Agent Log In and Log Out*



There are three feature codes that can be used for logging in to and out of the ACD hunt groups: ACD Agent Login, ACD Agent Logout, and ACD Agent Login/Logout. The first two perform only one operation. The third (Login/Logout) is a toggle feature code that logs the endpoint in or out of ***all*** associated ACD hunt groups at once. If the toggle feature code is programmed in a user-programmable button with a lamp, the lamp will be lit when the agent is logged in to an ACD hunt group and available to receive calls, and it will be unlit when the agent is logged out.

To log out of all of your ACD hunt groups at once using the login/logout feature code:

While on- or off-hook (single line users must lift the handset), enter the ACD Agent Login/Logout feature code (328). The display shows AGENT LOGGED OUT OF ALL ACDS, and you hear a confirmation tone. Hang up if off-hook.

To log in to all of your ACD hunt groups at once using the login/logout feature code:

1. While on- or off-hook (single line users must lift the handset), enter the ACD Agent Login/Logout feature code (328). ***If you were already logged in,*** the display shows AGENT LOGGED OUT OF ALL ACDS, and you hear a confirmation tone. ***If you were not logged in,*** continue to the next step.
2. The display shows AGENT LOGIN AGENT ID. Do one of the following:
   - **To log in to all ACD hunt groups for which you have an Agent ID:** Enter your Agent ID. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into ***only the ACD hunt group(s) that use the Agent ID that you entered.*** Hang up if off-hook. ***If another agent is already logged in at this endpoint,*** you hear reorder tones, and the display shows DIFFERENT AGENT ID ALREADY USED. You must have the other agent log out before you can use that endpoint.
   - **To log in to all of your ACD hunt groups that do not use Agent IDs:** Press #. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into ***only the ACD hunt group(s) that do not use Agent IDs.*** Hang up if off-hook.

To log in to one or more hunt groups using the ACD agent login feature code:

1. While on- or off-hook (single line users must lift the handset), enter the ACD Agent Login feature code (326). The display shows AGENT LOGIN ACD NUMBER.
2. Enter the pilot number of the desired ACD hunt group. (Or, you can press # to log in to several ACD hunt groups at once.)

   If you entered an invalid hunt group number, the display shows NOT AN ACD HUNT GROUP, and you hear reorder tones.
3. The display shows AGENT LOGIN AGENT ID. Then do one of the following:
   - **To log in to ACD hunt group(s) using Agent IDs:** Enter your Agent ID. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into ***only*** the ACD hunt group(s) that you requested in step 2 ***that use the Agent ID that you entered in this step. If another Agent ID is already logged in at this endpoint,*** you hear reorder tones and the display shows DIFFERENT AGENT ID ALREADY USED. You must have the other agent log out before you can use that endpoint.
   - **To log in to ACD hunt group(s) that do not use Agent IDs:** Press #. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into ***only*** the ACD hunt group(s) that you requested in step 2 ***that do not use Agent IDs.***

   If you are already logged in, the display shows ALREADY LOGGED INTO xxxxx.

   If you are not a member of the entered hunt group, the display shows NOT AN AGENT IN THIS HUNT GROUP, and you hear reorder tones. Start over.
4. If off-hook, hang up. Repeat the procedure to log in to additional ACD groups.

To log out of an ACD hunt group:

1. While on- or off-hook, enter the ACD Agent Logout feature code (327). One of the following will occur:

   If you were logged in to only one hunt group, you hear a confirmation tone, and the display shows AGENT LOGGED OUT OF ***(hunt group).*** The procedure is complete. Hang up if you were off-hook.

   If you were logged in to more than one hunt group, you hear a confirmation tone, and the display shows AGENT LOGOUT ACD NUMBER. Go to the next step.

   If you were not logged in to any hunt group, the display shows NOT LOGGED INTO ANY ACD GROUP, and you hear reorder tone.

2. Dial the pilot number of the desired ACD hunt group or press pound (#) to log out of all of your ACD hunt groups. You hear a confirmation tone, and the display shows AGENT LOGGED OUT OF ***(hunt group).***

   If you were not logged in to the hunt group number that you entered, the display shows NOT LOGGED INTO ***(hunt group).*** Start over.

3. If off-hook, hang up.

Restart ACD Idle Time Upon Login Flag

The Restart ACD Idle Time Upon Login flag determines where an agent is placed in a longest idle queue when he or she logs back in to a hunt group. When *enabled*, the agent's idle time is reset to zero whenever he or she logs in (i.e., that agent will be least likely to receive the next distributed call). If *disabled*, the agent's idle time includes the time the agent was logged out of the hunt group (i.e., that agent will be most likely to receive the next distributed call). By default, this flag is *disabled*.

This flag is programmable for each individual hunt group.

ACD Agent Wrap-Up Timer

Each time an agent ends an ACD hunt group call, the endpoint goes into "wrap-up" mode, and the ACD Wrap-Up Duration timer is started. Until that timer expires, the agent will not receive another call through any ACD hunt group. (However, the agent can receive non-ACD hunt group calls, direct ring-in calls, and transfers.)

The range of the ACD Wrap-Up Duration timer is 1 to 65,535 seconds. The default value is 15 seconds. It is programmed individually for each ACD hunt group.

If an agent wants to terminate the wrap-up mode before the timer expires, he or she can use the following procedure.

To terminate ACD agent wrap-up:

While on- or off-hook (single line users must lift the handset), enter the ACD Wrap-Up Terminate feature code (329). The display shows ACD WRAP-UP TERMINATED. (***If you were not logged in to an ACD hunt group,*** the display shows CANNOT ACCESS RESERVED FEATURE.)

Wrap-Up Mode for Holding ACD Calls

There is a system flag called "Wrap-Up Mode For Holding ACD Calls." If enabled, it places an ACD agent's endpoint in wrap-up mode when an ACD call is placed on hold. (However, the ACD Wrap-Up Duration timer is not activated.) This prevents the agent from receiving additional ACD hunt group calls after he or she places an ACD call on hold while the endpoint is idle. (The endpoint can still receive non-ACD calls, as usual.) If the flag is disabled, the agent will be available to receive additional ACD calls as soon as an ACD call is placed on hold. In the default state, this flag is ***disabled.***

This flag applies to any type of hold, including individual, system, transfer, and conference-wait hold. If the call is terminated or if it is reverse transferred by another endpoint, the ACD agent's endpoint will be made available to receive incoming ACD calls.

If the agent wants to terminate the wrap-up mode while an ACD call is on hold, he or she can use the procedure described in the previous section.

ACD Agent ID Automatic Connect Flag

When the ACD Agent ID flag is enabled, and the agent is using a headset, ACD hunt group calls will automatically be connected following a short ring burst. (This feature will not work if the agent is not using a headset.)

When the ACD agent logs in or removes the endpoint from Do-Not-Disturb mode, the first call will ring until the ACD agent answers it. However, every time an ACD hunt group call is received after the first call, the agent will hear the ring burst from the endpoint and the call will be automatically connected.

This flag overrides the endpoint's Transfer-To-Connect endpoint flag, which is disabled by default.

Group Call Pick-Up

When the Group Call Pick-Up feature is enabled, a call ringing in to a hunt group or one of its endpoints can be picked up at any other endpoint. Users can enter the Reverse Transfer feature code (4) and dial a hunt group's pilot number to pick up a call that is ringing in to the hunt group's pilot number or to any endpoint within that hunt group.

The system follows the priority list shown below to determine which call is picked up. The system follows the hunt group list (always beginning with the first endpoint on the list) to check each endpoint in the hunt group and then the overflow endpoint for one type of call at a time. If there is more than one call of the same type at the selected endpoint, the call that was received by the endpoint first is picked up. Holding calls and queue callbacks cannot be picked up.

1. Calls to the hunt group pilot number
2. CO calls
   a. Direct ring-in calls
   b. Transferred calls
   c. Recalls
   d. Camped-on calls
3. IC calls
   a. Direct ring-in calls
   b. Transferred calls
   c. Recalls
   d. Camped-on calls

NOTE Group Call Pick-up can only retrieve calls from endpoints that are currently logged in to the hunt group. You cannot use this feature to pick up calls from members who have logged out using the Hunt Group Remove feature code. Also, Group Call Pick-up cannot be used on ACD Hunt Groups that use Agent IDs. It can only be used on hunt groups that use lists of extensions. If the ACD Hunt Group flag is enabled, the Group Call Pick-up flag will be dimmed.

To pick up a call that is ringing at a hunt group:

1. Lift the handset, and/or enter the Reverse Transfer feature code (4). You hear a single progress tone.
2. Dial the pilot number of the hunt group where the call is ringing.

   Inter-Tel endpoints: If the system is programmed for direct connection of reverse transferred calls, you are immediately connected. If not, press the flashing CALL, individual trunk, or IC button.

   Single line endpoints: You are automatically connected.

ACD Hunt Groups Span Nodes

There is a premium feature called Remote Automatic Call Distribution Hunt Groups. It allows ACD hunt groups to span nodes. Node-spanning ACD hunt groups can have either members or ACD Agent IDs.

- **Members:** ACD hunt group members may include off-node endpoints, off-node single lines, and Hunt Group Member extension lists.
- **ACD Agent IDs:** Unlike members, there are no off-node Agent IDs. Agent IDs are considered global throughout all nodes in which the Agent exists. This means that if you create Agent ID 100 on one node, you must also create Agent ID 100 on all other nodes that have an endpoint that a user may want to login to the hunt group using that ID.

The Remote Automatic Call Distribution Hunt Groups premium feature must be included in the software license where the hunt group resides as well as any node that wants to have users login to the node-spanning hunt group. The ACD Hunt Groups premium feature is also required. Because of this fact, there are several cases that must be considered. The following table shows the different displays and results for logging in to and out of ACD hunt groups with the different combinations of the premium feature and the ACD Hunt Group enabled/disabled.

Table 23. *Displays and Results for Logging In and Out*

END-POINT NODE	HUNT GROUP NODE	LOGIN DISPLAY	LOGIN RESULT	LOGIN "ALL" DISPLAY	LOGIN "ALL" RESULT
Yes	Yes	AGENT LOGGED INTO HUNT GROUP XXXX	Agent logged into hunt group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local and remote groups.
Yes	No	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local hunt groups, but not remote where feature disabled.
No	Yes	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local, but no remote groups.
No	No	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local, but no remote groups.

Database Programming

- ACD hunt groups have options allowing the addition of endpoint off-node devices, single line off-node devices, and hunt group member extension lists containing local or off-node endpoints or both.
- If the Remote Call Distribution Hunt Groups premium feature is not included in the node's software license, the off-node options will not appear in the list when programming members for ACD hunt groups.

Operational Changes

- The Station Monitor feature remains limited to a single node. Members who are logged in to a remote node or who are logged in to the supervisor's node from a remote node cannot be monitored.
- Hunt groups with remote members rely on network links among nodes. Node availability affects hunt group log-in procedures as follows:

  - Hunt group members attempting to log in to all hunt groups will be logged in to only those hunt groups on nodes that are reachable. The display on the user device will only indicate log in results for reachable nodes.
  - Members logging out of all hunt groups will be logged out of groups on reachable nodes immediately and will automatically be logged out of groups on unreachable nodes as soon as the link to the node is restored. The endpoint will display MESSAGE PENDING in this case.
  - When users attempt to log in to a remote hunt group on a node running system software that is not Inter-Tel CS-5200/5400, the endpoint display will show NOT AN ACD HUNT GROUP.
  - If users try to log into a hunt group on a node that is not Inter-Tel CS-5200/5400, the display will show the message NOT AN AGENT IN THIS ACD GROUP.
- The ACD Wrap-Up uses the following prioritization method for hunt groups with remote members:
  - The first criterion is priority level. The hunt group with the highest priority gets the available agent first.
  - In the event of a tie in priority, hunt groups located locally take priority over those located on remote nodes.
  - In cases where ties in priority occur within the local node, the hunt group with the longest camped on call will receive the available agent.
  - Given off-node ties in priority, the first hunt group to camp on will receive the available agent.

Maintenance of Node-Spanning Hunt Groups

- Deletion of an ACD agent from a hunt group is done from the node on which the hunt group resides or from a remote node.
  - If an agent is deleted on the node containing hunt group(s) of which he is a member, then the agent is removed from all hunt group(s) on that node and is logged out.
  - If the agent is deleted from a remote node, the agent is logged off from that node, but remains a member of any hunt group(s) located on other nodes.
- If the hunt group is deleted, all remotely logged-in endpoints will be logged out.
- If the extension number of an ACD Hunt Group is changed, any local or remote endpoints that are logged in will reflect the change. If links are down at the time of the change, remote nodes will not receive the change and an import/export process will be necessary to update the information on the affected nodes.
- Removing an Agent ID from a hunt group agent list logs out any endpoint, local or remote, that is logged in to that hunt group using that Agent ID.
- With the node-spanning features of ACD hunt groups, changing Agent IDs can be done from two possible locations: on the node where the group resides or on a node where the logged-in endpoint resides.
  - When changing an Agent ID on the node where the hunt group resides, the remotely logged-in endpoint using that Agent ID will be logged out even though the Agent ID still exists on the remote node. The hunt group will then contain the new Agent ID in its removed list, making the new Agent ID available for log-in use.
  - When changing an Agent ID on the node on which the logged-in endpoint resides (a node remote from the hunt group), the remote member will be logged out and the old Agent ID will no longer exist on that node. The hunt group on the original

node will contain the old Agent ID in its removed list, because this ID still exists on that node.

- During a database restore on a node containing ACD hunt groups that use Agents IDs, all Agents IDs are placed into each hunt group's removed list. All endpoints will be logged out during the restore.
- When the extension number of a logged-in endpoint is changed, the new extension will be logged in with the same Agent ID and will not be disconnected. This applies to endpoints logged in both remotely and locally.

Enabling the Send Camp-On Notifications to Members in DND Flag

The Send Camp-On Notifications to Members in DND flag is located under System\Devices and Feature Codes\Hunt Groups\Local\<Hunt Group>. This flag indicates whether or not camp-on burst tones are sent to hunt group members that are in DND or that are logged out. When sent to display endpoints, the display also indicates N CALLS WAITING FOR <HUNT GROUP>, where N is the number of calls that are currently camped on to the hunt group. This allows hunt group members to see the hunt group queue in real-time.

If this flag is enabled:

- UCD hunt group members that are in DND will receive camp-on notifications.
- ACD hunt group members that do **NOT** use agent IDs will receive camp-on notifications when the members are **NOT** logged in to the hunt group. This, in effect, is the same as being in DND from the hunt group perspective.
- ACD hunt group members that use agent IDs will receive camp-on notifications only when the agent is logged in to the hunt group and in DND. Agents also receive notifications while in wrap-up.

If the flag is disabled, which is the default setting, camp-on notifications are not sent to hunt group members.

Trunk Features

This section explains the trunk functions and programmable features.

CAUTION

Possible trunk misuse. While this system is designed to be reasonably secure against CO trunk misuse by outside callers, there is no implied warranty that it is not vulnerable to unauthorized intrusions and toll fraud. If the central office does not provide supervision it will not disconnect the call when one party hangs up; it is possible for a caller to remain connected to a CO trunk circuit. If this happens, and the caller begins dialing, the call could be placed through the system and would then be billed to the system's owner. The system cannot check this type of call for toll restriction and may not register the call in SMDR. This problem could arise when a call is connected to an endpoint or when a call is in an unsupervised conference.

Caller ID, DNIS, and ANI

NOTE The standard Advanced CO Interfaces feature is required to use the following features.

The system supports Caller ID, ANI, and DNIS to data about the source of the call.

- **Caller ID:** Caller ID information gives the caller's phone number and/or name.

- **Automatic Numbering Identification (ANI):** ANI information identifies the caller's phone number. The system receives a specified number of digits.
- ***ANI*:** This is a form of ANI that does not have a specified number of digits. The system receives a star (*) before the ANI digits to signal the beginning of the caller's phone number. Then there is another star after the digits to signal the end of the ANI information.
- **Dialed Number Identification Service (DNIS):** DNIS identifies the number that was dialed to reach your location. The system receives a base number and a specified number of digits that identify the dialed number.
- ***DNIS*:** This is a form of DNIS that does not have a specified number of digits. The system receives a star (*) before the DNIS digits to signal the beginning of the dialed number. Then there is another star after the digits to signal the end of the DNIS information.
- ***ANI*DNIS*:** This is a two-stage address service that provides both the caller's phone number and the dialed number. It combines the *ANI* and the *DNIS* features described above.

Inter-Tel Endpoint Displays

Whether call information appears on the Inter-Tel endpoint display and what information appears, is determined by endpoint flags in the database. The flags include:

- **Expanded CO Call Information On Displays:** This flag determines whether call information (trunk name or call information) is displayed at the endpoint. If it is enabled, the Outside Call Party Information Has Priority flag (described below) determines what is displayed. If it is disabled, the programmed trunk group username will appear on the display. In the default state, this flag is *enabled.*
- **Outside Party Call information Has Priority:** If the Expanded CO Call Information flag is enabled (as described above), this flag determines what information is displayed at the endpoint. If enabled, any call that is received on a trunk that provides outside call information (for example, Caller ID or ANI), will be identified on the endpoint's display with the call information. If disabled, the display will show the DID or DNIS information for the call (if available). In the default state, this flag is *enabled.*
- **Display Outside Name:** If this flag is enabled, the endpoint user can switch between the outside party name and number when connected to a CO call with outside party information. The endpoint user enters the Display Outside Party Name On/Off feature code (379). In addition, the enhanced ring-in displays will provide the user with more information such as both Caller ID name and number if available, or tell the user if a Caller ID number is blocked or out-of-area. This is an endpoint flag that applies to Inter-Tel endpoints only. In the default state, this flag is *enabled*.

The system provides the user with advanced displays for direct ring-in calls if the endpoint has both of the following endpoint flags enabled: "Expanded CO Call Information On Displays" and "Outside Party Call Information Has Priority."

A typical direct ring in display would look like the following: "TRNK GRP 1 RINGING IN." However, with the enhanced displays, the system will attempt to display the name of the outside caller on line 1 and the number of the outside caller on line 2.

When a CO call rings into the system, the system uses the following criteria to determine the name that will appear on the display endpoints. The criteria are listed from highest priority to lowest priority.

Display Line 1

The following criteria are used to display the name on the top line of the ring-in display. This assumes that all of the necessary endpoint flags are properly set and usernames are correctly filled in or left blank (at the programmer's discretion) for Call Routing Tables and Trunk Group Names.

1. Outside Party Name provided by the Desktop Application, if available.
2. Outside Party Name provided by Caller ID, if enabled at the system-wide flag level.
3. Outside Party Name provided by System Speed Dial. If the collected number matches a number in a Speed Dial bin, the system uses the name of the corresponding Speed Dial bin.
4. Outside Party Number provided by the Desktop Application.
5. Outside Party Number provided by Caller ID, if enabled at the system-wide flag level.
6. Outside Party Number provided by ANI service, if enabled at the system-wide flag level.
7. Call Routing Table Name, if the name is not blank.
8. Trunk Group Name, if the name is not blank.
9. Default Trunk Group Name (TG XXXXX).

Display Line 2

The following criteria are used to display the number on the bottom line of the ring-in display. This assumes that all of the necessary flags are properly set.

1. Outside Party Number provided by the Desktop Application, if available.
2. Outside Party Number provided by Caller ID, if enabled at the system-wide flag level.
3. Outside Party Number provided by ANI service, if enabled at the system-wide flag level.
4. Number Absence Reason, such as Caller ID "OUT-OF-AREA" or "PRIVATE" (blocked) message.
5. RINGING IN display.

ANI and Caller ID information is also sent to the Voice Mail application to provide the caller's phone number as part of the message envelope.

NOTE Caller ID is not transmitted to Single-Line adapters (SLAs).

Outgoing-Access, Allowed-Answer, and Ring-In Assignments

Each trunk group has programmed lists of endpoints for outgoing-access, allowed-answer, and ring-in assignments for day and night modes.

Outgoing-access assignment for a particular trunk group or node trunk group permits the endpoint user to place calls using trunks in that trunk group. Each endpoint has a default outgoing access code programmed in the database. When the user presses the **OUTGOING** button, presses an idle Call button, or enters the Outgoing Call feature code (8), the system automatically selects an outgoing trunk.

NOTE Because the network does not allow users to directly access trunks on other nodes, each trunk group's Outgoing Access can contain only endpoints on the local node. Users must use ARS to access trunks on other nodes.

- **Allowed-answer** access to a particular trunk group permits the endpoint user to answer incoming calls on the trunks in that trunk group, even if the endpoint does not have ring-in assignment for that trunk group. Endpoints cannot have allowed-answer assignment for trunk groups on other nodes. On Inter-Tel endpoints, the individual trunk button flashes (if one exists) to indicate the ringing call. If a endpoint is programmed with

allowed-answer access only (no ring-in) for a trunk group, direct ring-in calls on that trunk group can be answered by entering the Automatic Trunk Answer feature code (350) or pressing the flashing individual trunk button.

- **Ring-in** assignment for a particular trunk group can be assigned to one or more endpoints, extension lists, or voice processing system applications; to a hunt group; to DISA; or to a call routing table. A trunk can ring in to an endpoint or voice processing system application on another node. The ring in destination(s) for the trunk group will receive direct ring-in calls on trunks in that trunk group. On Inter-Tel endpoints with ring in, the individual trunk or Call button flashes, and the display indicates a ringing call. Allowed answer for the trunk group is automatically assigned to an endpoint with ring in.

When Inter-Tel endpoints have outgoing-access or ring-in assignments, the associated individual trunk buttons show the status of their trunks.

Endpoints that do not appear on any of the lists cannot place or directly receive outside calls; they are limited to intercom calls, conferences, transferred calls, and retrieving calls on system hold. (A call on system hold can only be picked up at the endpoint that placed it on hold or at an endpoint that has an individual trunk button and has allowed-answer and/or outgoing access for that trunk.)

A private trunk group (with one or more trunks) can be established by programming outgoing-access, ring-in, and allowed-answer permission for the trunk group to only one endpoint.

Answer Feature Code

For calls that are ringing or holding at the endpoint, the user may enter the Answer feature code (351) or press the ANSWER button. When more than one call is ringing or holding, the following priority list determines which call is answered first:

- Ringing calls (ring ins, recalls, callbacks, or transfers) are answered in the order they were received.
- Calls on individual hold are answered in the order they were placed on hold.

Automatic Route Selection (ARS)

ARS is a money-saving feature that allows the system to be programmed to select the least expensive route for placing outgoing calls. It can be used for placing outgoing calls and transferring or forwarding calls to outside phone numbers. Endpoints can be restricted to using only ARS for placing outgoing calls. Also, because users do not have direct access to trunks on other nodes, ARS is the only way users can place calls using the other nodes' trunks.

ARS is programmed using route groups and facility groups.

- **Route Groups:** A route group contains dialing patterns and facility groups.
  - — The dialing patterns are used to determine the calls that will be routed through the route group. For example, the default dial pattern for Route Group 1 is N+ (any number of digits beginning with digit 2–9). If a number is dialed that begins with 1, it will not be routed through this route group.
  - — Each route group has an ordered list of facility groups that contains lists of local trunk groups and/or nodes. There can be 100 facility groups in the system. The facility groups should be programmed so that the least-expensive route is checked and, if available, is selected first. If the least-expensive facility group is not available, the system checks the other groups in the list until it finds an available trunk.

- **Facility Groups:** A facility group contains trunk group/node lists and dial rules.
  - The trunks can include local trunk groups or nodes.
  - The dial rules tell the system what to dial. The system can have up to 32 dial rules, 26 of which are programmable. Each facility group can use up to 32 dial rules. For example, if the selected route group requires that the number contain "1" but no area code, the dial rules include the 1 and drop the area code. The modified phone number can contain up to 32 digits. (If SMDR is enabled, the modified phone number, not the digits dialed, will appear in the SMDR call record.) When programming ARS, you can use preset dial rules or create new dial rules that add up to 16 digits each.
  - The preprogrammed dial rules are:
  - ***Dial Rule #1 – Echo Equal Access:*** This non-programmable dial rule includes the equal access digits (10XXX or 101XXXX) in the number, if dialed.
  - ***Dial Rule #2 – Echo Toll Field:*** The toll field (1, 0, 01, or 011) is included in the number, if dialed. This dial rule is non-programmable.
  - ***Dial Rule #3 – Echo 3 Digits After Toll Field:*** With this non-programmable dial rule, the three digits after the toll field are included in the number. (These digits are usually the area code or country code.)
  - ***Dial Rule #4 – Echo Local Address:*** This non-programmable dial rule allows ARS to dial the phone number that was dialed by the user.
  - ***Dial Rule #5 – Add Account Code:*** This non-programmable dial rule causes the system to dial the account code that is associated with the call, when it is available. The account code can be entered using any of the account code types, including All Calls Following, as long as the system receives the account code before the end of dialing. (To use an optional account code, the code must be entered before the number is dialed.)
  - ***Dial Rule #6 – Add Extension Number:*** This non-programmable dial rule tells the system to include the extension number of the endpoint or voice processing system application that is being used to place the call.
  - ***Dial Rule #7 – Add #:*** This dial rule adds a pound (#) to the number dialed. This dial rule can be programmed.

When ARS is selected, the user dials the number (including the area code, if needed), and the system does the following:

1. **Checks the dialed number and matches the dialing pattern to a route group:** The system checks the route groups in numerical order and selects the first group that applies to the dialing pattern of the number that was dialed.

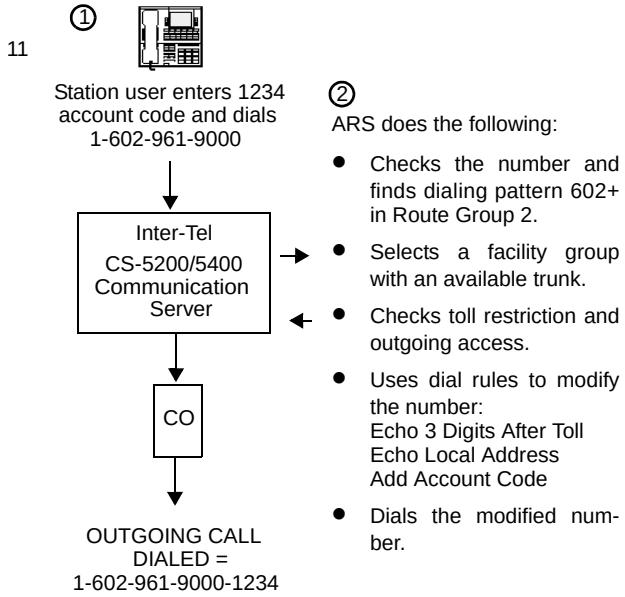
   NOTE If the Emergency Call feature is programmed to use ARS, the emergency calls will always go through Route Group 1, regardless of route group programming.

2. **Selects a facility group:** If all of the trunks are busy, and the endpoint is enabled for ARS camp on, the call will camp on to the facility group until a trunk is available.
3. **Checks for toll restrictions and outgoing access:** Before the number is modified by the facility group's dial rules, the system checks the endpoint toll restrictions and outgoing access to determine whether the call is allowed. (All calls placed using ARS are toll restricted, regardless of whether the selected trunk is subject to toll restriction. However, Emergency Call feature calls are never toll restricted.) If allowed, the system continues to the next step. If not allowed, the system sends reorder tones, and the call is not placed.

4. **Adds or deletes digits according to the facility group chosen:** Each facility group has a programmed set of dial rules that tells the system what to dial. For example, if the selected route group requires that the number contain "1" but no area code, the dial rules include the 1 and drop the area code.
5. **Dials the modified phone number:** If the number is allowed, the system seizes an idle trunk in one of the selected trunk groups, waits for the Dialing Wait After Connect timer to expire, and then dials the number.

When ARS is used, the user hears dial tone when the feature code is entered (manually or automatically using a Call button, the ARS button, or the OUTGOING button). The user then dials the number and hears silence until the trunk is seized and dialing is completed. (The user will not hear the digits being dialed.) The call appears under an available Call or trunk button.

Figure 8. *ARS Example*


11
1
Station user enters 1234 account code and dials 1-602-961-9000
Inter-Tel CS-5200/5400 Communication Server
CO
OUTGOING CALL DIALED = 1-602-961-9000-1234
2
ARS does the following:
Checks the number and finds dialing pattern 602+ in Route Group 2.
Selects a facility group with an available trunk.
Checks toll restriction and outgoing access.
Uses dial rules to modify the number:
Echo 3 Digits After Toll
Echo Local Address
Add Account Code
Dials the modified number.

Toll Restriction

The following features provide toll restriction on the system. (They are described in further detail in this section.)

- **Trunk Group Toll Restriction:** Each trunk group can be designated as "subject to toll restriction" or "not subject to toll restriction" in Database Programming. If subject to toll restriction, endpoint class of service is checked when the trunk group is selected for placing an outgoing call. The exceptions to trunk group toll restriction are as follows:
  - **Emergency Call Feature:** When the Emergency Call feature code is entered, the designated trunk access code is used to seize a trunk and the programmed emergency number is dialed regardless of any endpoint or trunk group toll restrictions.
  - **Automatic Route Selection (ARS):** Calls placed using ARS (except Emergency Call feature calls) are always subject to toll restriction, regardless of the selected trunk group's toll restriction programming. Note that only the endpoint COS is checked; the trunk group COS is not.
  - **Network ARS Calls:** When determining toll restriction for an ARS outgoing call, the network checks the endpoint toll restriction based on the database information on the node on which the endpoint resides, not the node that contains the trunk which the system uses to place the call. The system does not check the trunk COS for ARS calls.

- **Exemption from ARS-Only Restriction:** Each trunk group may be designated as "exempt from automatic route selection (ARS) only." If exempt, endpoint users with the ARS-Only class of service can select the trunk group directly.
- **Absorbed Digits:** Trunk groups that are subject to toll restriction can be programmed to "absorb" (ignore) the first digit(s) dialed. This allows the system to handle the dialed digits just as they would be by the local telephone company or PBX to which the system is connected.
- **Endpoint and Trunk Group Classes of Service:** Each endpoint and trunk group can be assigned one or more classes of service (COS) to restrict or allow certain digit patterns when an outside call is dialed. Trunk group COS is not checked if ARS is used.

Class Of Service

Each endpoint and each trunk group that is "subject to toll restriction" is assigned toll restriction classes of service (COS) that restrict or allow certain dialing patterns on outside calls.

COS is programmed individually for endpoints, voice processing system applications, and trunk groups. Separate COS designations are available for day and night modes. A endpoint or trunk group can be completely unrestricted or can have any combination of the classes of service.

System Speed Dial numbers can be programmed to bypass COS restrictions on a system-wide basis. If the option is not enabled, all System Speed Dial numbers are subject to toll restriction.

Because a condition may exist where a critical or life threatening situation needs to be reported, using the Emergency Call feature code will override all toll restrictions and trunk access programming.

Note that if the trunk group is "not subject to toll restriction," neither the trunk group nor endpoint COS is checked, unless the call was placed using ARS. All ARS calls are subject to *endpoint* toll restriction only.

The first nine COS designations (01–09) have default values. COS designations (10–16) do not have default values and are blank. All of the classes of service are programmable. Each may be specified as an "allowed" or "denied" class of service, dialing patterns can be programmed for each, and each can be assigned to endpoints and trunk groups as needed.

The default values of COS 01–09 are shown in the following table.

Table 24. *Class of Service Default Values*

COS	NAME	RESTRICTION
01	ARS Only	*(This is an endpoint class of service only. It is not used for trunk groups. Also, the Automatic Route Selection (ARS) feature, which is standard on the Inter-Tel CS-5200/5400, is required.)* Calls can only be placed using the ARS feature. The user will hear reorder tones when attempting to place a call using any other method. A restricted user can still select individual trunks if the trunks are designated as "exempt from ARS Only," as described on page 127, or if they were transferred, were placed on hold, or are recalling or ringing. Trunk restriction determines which trunks in the ARS route group can be selected by the endpoint or application.

Table 24. *Class of Service Default Values(Continued)*

COS	NAME	RESTRICTION
02	Deny Area/ Office	This restriction is divided into eight user groups to allow the use of varying area/office code restriction tables. This is useful for reducing restrictions for some of the endpoints, applications, or trunk groups while increasing restrictions for others. Each endpoint, application, and trunk group is assigned a day mode and a night mode user group in Database Programming. Within each user group, area codes can be designated as restricted, allowed, or extended. Restricting an area code prevents users from placing calls to that area code. Allowing an area code allows all office codes within that area code. Designating an area code as extended allows the programmer to determine which office codes (up to 800) are allowed or restricted within that area code.
03	Deny Operator	Calls to operator numbers are restricted.
04	Deny Toll Access	Calls to numbers containing a toll string (defaults to 1) are restricted.
05	Deny International	Calls to international numbers are restricted.
06	Deny Equal Access	Calls that begin with equal access digits (10XXX or 101XXXX) are restricted.
07	Deny Local Calls	Calls to local numbers are restricted.
08	Denied Numbers	Calls to programmed “denied” numbers (defaults to 1900NXXXXXX+ and 976XXXX+) are restricted.
09	Allowed Numbers	Calls to programmed “allowed” numbers (defaults to 1800NXXXXXX+) are allowed, even if number also matches a dial pattern in a restricted class of service that is assigned to the endpoint, application, or trunk group being used.

Emergency Call Feature

NOTICE

It shall be the responsibility of the entity or person(s) completing installation and maintenance of hardware or software described herein to research, comply with and be responsible for the specific governmental rules and regulations regarding Emergency Outgoing Access (911/999 in Europe) of the geographic location in which such functions are performed.

The system immediately allows access to local emergency facilities when an endpoint user enters the Emergency Call feature code (defaults to 911, or 999 in Europe). When activated, the Emergency Call feature selects a trunk or routes the call based on the device programming. The digit(s) required to call the local emergency services facility (defaults to 911, or 999 in Europe) are then automatically dialed. Because a condition may exist where a critical situation needs to be reported, this feature overrides all toll restrictions and trunk access programming.

The emergency extension is programmable on a per-endpoint basis. In addition, Day/Night Emergency Outgoing Access lists are provided to validate the extension making the emergency call. When a user dials 911, or 999 in Europe, at intercom or CO dial tone, emergency outgoing access is granted based on how system programming and what the user dialed, as described below.

- *If the user dials the emergency feature code from an endpoint with a trunk or trunk group programmed as the Emergency Extension*, the Emergency Call feature routes the call based on the endpoint's Emergency Extension. The trunk or trunk group does *not* validate the endpoint originating the emergency call against the trunk group's Emergency Day/Night Outgoing Access List. An idle trunk is seized, and the system automatically dials Emergency Number 1.
- *If the user dials the emergency feature code from an endpoint with ARS programmed as the Emergency Extension*:

  a. The Emergency Call feature routes the call based on the endpoint's Emergency Extension.

  b. The call is routed to Route Group 1.

  c. The call tries the first facility group in Route Group 1.

  d. The trunk group or node trunk group validates the endpoint originating the emergency call against the group's Emergency Day/Night Outgoing Access List.

  e. *If the call is denied*, it tries the next member in the facility group. If each member denies the call, the call tries the next facility group in Route Group 1's list.

     If everything is denied due to Emergency Outgoing Access, the call is routed once again to Route Group 1. The call then tries the first facility group in Route Group 1. The trunk group or node trunk group does *not* validate the endpoint originating the emergency call against the group's Emergency Day/Night Outgoing Access List. If no trunks are available, the call tries the next member in the facility group. If all of the members are unavailable, the call camps-on to Route Group 1 until a trunk is available.

- *If the user accesses a trunk or trunk group and dials any Emergency Number (1–10)*, the trunk or trunk group does *not* validate the endpoint originating the emergency call against the trunk group's Emergency Day/Night Outgoing Access List. An idle trunk is seized, and the system automatically dials the emergency number.
- *If the user accesses ARS and dials any Emergency Number (1–10):*

  a. The call is routed to Route Group 1.

  b. The call tries the first facility group in Route Group 1.

  c. The trunk group or node trunk group validates the endpoint originating the emergency call against the group's Emergency Day/Night Outgoing Access List.

  d. *If the call is denied*, the call tries the next member in the facility group. If each member denies the call, the call tries the next facility group in Route Group 1's list.

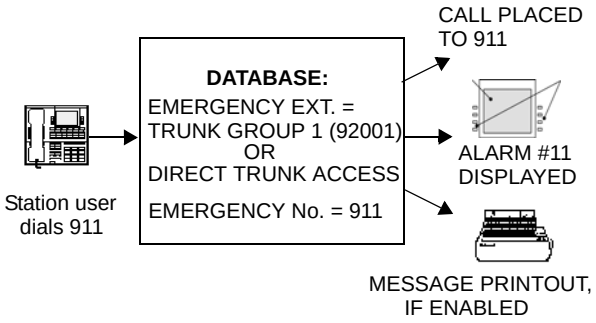
If everything is denied due to Emergency Outgoing Access, the call is routed once again to Route Group 1. The call then tries the first facility group in Route Group 1. The trunk group or node trunk group does *not* validate the endpoint originating the emergency call against the group's Emergency Day/Night Outgoing Access List. If no trunks are available, the call tries the next member in the facility group. If all of the members are unavailable, the call camps-on to Route Group 1 until a trunk is available.

NOTE Inter-Tel highly recommends that only local trunks be installed and used for emergency trunk access and that only local trunks be programmed in Route Group 1. Programming a node in Route Group 1 may cause the system to access a trunk on a separate node when ARS is used for emergency access. If this occurs, Emergency Outgoing Access is no longer validated.

The system will allow the Dialing Wait After Connect timer to expire and will then dial the digit string programmed in the database as the emergency number.

At the time the call is processed, a minor alarm will be generated by the system and sent to all administrator endpoints. Also if the Message Print option is enabled, the alarm message is sent to the designated output port.

Figure 9. *Emergency Call Feature*



Emergency Outgoing Access Lists

Inter-Tel CS-5200/5400 supports two outgoing access lists called *Emergency Day Outgoing Access* and *Emergency Night Outgoing Access*. These lists, which are similar to the Day/Night Outgoing Access lists, are programmable for CO Trunk Groups and Node IP Connection Groups. These lists default to the Auto Extension List *PP051: Auto: All Endpoints*.

Ten Emergency Numbers

The system can store up to ten emergency numbers that are dialed when the Emergency Call feature is used.

When the Emergency Call feature code (defaults to 911) is dialed at intercom dial tone, the Emergency Call feature will select a trunk (defaults to Trunk Group 1) and then automatically dial Emergency Number 1. If a user accesses a trunk or ARS and dials Emergency Numbers 1–10, the dialed number will automatically override all toll restrictions and trunk access programming.

If the system is installed in an area where 911 service is not available, it is suggested that the number for the local police or fire department or the telephone company operator be substituted.

If the database programmer renders this feature inoperative by removing all trunk access and/or by removing the dialed digit string, the database program will present a warning message indicating that the feature has been disabled and requiring the programmer to acknowledge or change this condition before being allowed to continue.

Like all other feature codes, the 911/999 feature code can be changed to another 1–5-digit code, if necessary, but it is not recommended.

An emergency number is blocked if there are no trunks or emergency numbers programmed in the database, or all trunks in a trunk group are busy.

If the Emergency Call feature is programmed to use ARS, route group 1 (local calls) will be used even if its dial patterns are reprogrammed.

Emergency calls, by default, use the first local trunk group and will not be sent using node trunk groups on other nodes. However, when ARS is used to place an emergency call, Route Group 1 is used even if it contains nodes. This means that the network ***can*** access a trunk on a

node other than the user's node if the user accesses ARS and dials the emergency number. ***Local trunks must be installed and used for emergency number trunk access and nodes should not be used in Route Group 1.*** When a user places an emergency call, every administrator in the network receives an emergency alarm.

Calling Party Number Field

Each endpoint can be programmed to send an identifying number when a call is placed. The "Calling Party Number field is located in Devices and Feature Codes/Endpoints/Individual Endpoint programming. This information is required for emergency 911/999 calls in some states. You can program any number up to 48 digits in the Calling Party Number field. However, check with your service provider to determine their specific requirements for this field. This number will be sent in the ISDN setup message in the Calling Party Number Information Element. In addition, the system will also send the extension number of the endpoint in the Calling Party Number Subaddress Information Element. The CO should ignore this information element if it does not support it.

NOTE There is no default number for this field. It is up to the programmer to supply the correct Emergency Calling Party Number for each endpoint.

If an off-premises extension is used for dialing 911/999, the 911/999 operators will see Calling Party Number or the address of the location of the system, not the off-premises address. Off-premises personnel should be prepared to give the correct address and other pertinent information if it is not programmed as the Calling Party Number. The following diagrams illustrate a remote site without and with an MGCP gateway.

Figure 10. *Example of a Remote Site without an MGCP Gateway Application*

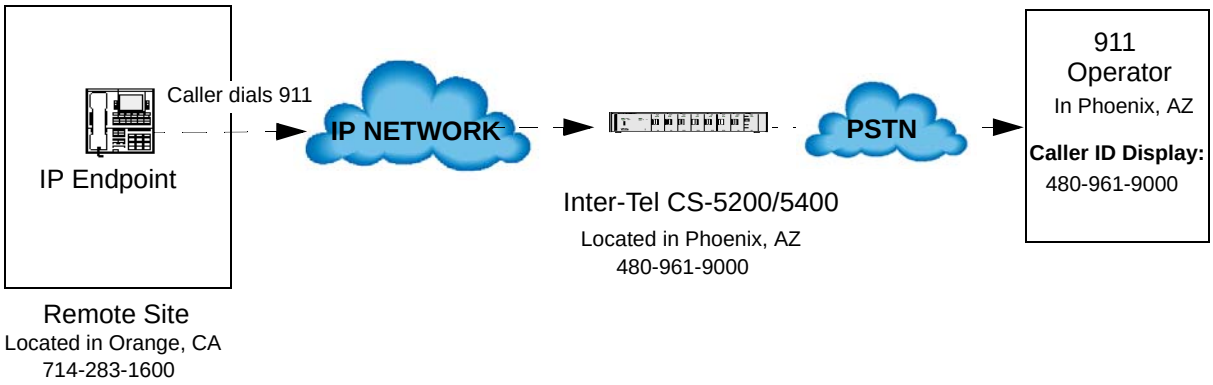
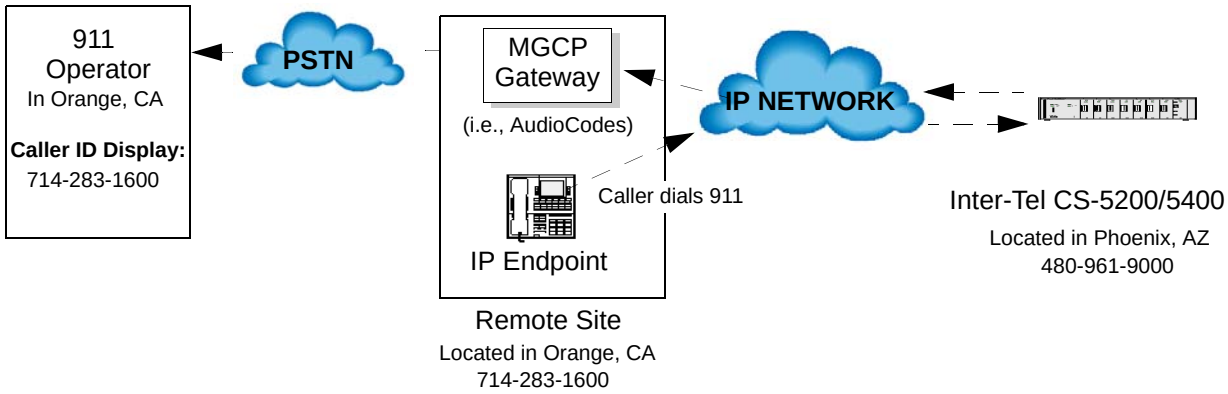


Figure 11. *Example of a Remote Site with an MGCP Gateway Application*



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NOTE The MGCP gateway is intended to connect to the PSTN. Connecting the MGCP gateway to single line ports on other telephone systems is currently not supported.

When configured with an MGCP Gateway, you can program the system so that when 911 is dialed from an IP device, the calling name and number associated with the IP device, not the system, is sent to the 911/999 operators. See the latest version of the *IP Devices Installation Manual* (part number 835.2195) for details.

CAUTION

Emergency Number Must Be Connected Correctly to Work Effectively. If an IP or SIP device user dials 911, or 999 in Europe, from a remote location and an MGCP gateway is not present and configured properly, the call will be placed from where the telephone system is located. Because 911/999 services use Caller ID to help locate the caller, emergency service could be misdirected or delayed. Also, the 911/999 service contacted may be local to the system, but not to the IP or SIP device. All IP and SIP device users should be alerted to this situation and instructed to use a local telephone line for placing emergency calls if an MGCP gateway is not present and/or functioning properly. Also note that IP and SIP devices will not function in the event of a power failure at either the local site or the system location. Inter-Tel will not be held responsible for any problems resulting from an unavailable line that is connected to the MGCP gateway. Inter-Tel also recommends that users regularly test the MGCP gateway for dial tone.

Day and Night Modes

There are separate lists in the database for class-of-service, outgoing-access, allowed-answer, and ring-in assignments for day and night modes. When an administrator enters the Night Ring feature code, the system uses the night mode lists. When the system is in day mode, the day lists are used. (Active calls are not affected when the mode is changed.)

Administrators can place any or all remote nodes into night mode or day mode. The default feature code for Enable Network Night is 9861. The default feature code for Disable Network Night is 9862.

NOTE The Night Ring On/Off feature code (9860) affects only the node on which the administrator resides. See page 11 for a complete explanation of administrator features.

Direct Inward System Access (DISA)

DISA is a programmable feature that allows an outside party to dial into the system from an external DTMF endpoint and then dial extension numbers, hunt group pilot numbers, and off-node device extensions. DISA callers do not have access to outgoing trunks or page zones.

Any of the trunk groups can be programmed to receive incoming DISA calls in day and/or night mode. When not in use for DISA, the trunk group can be used for placing outgoing calls by endpoints with outgoing access permission.

NOTE Due to the natural characteristics of the trunk, the volume level of DTMF tones transmitted over the trunk may be substantially reduced before reaching the system. This natural degradation in tone volume may adversely affect the reliability of the DISA feature. Other factors which can affect DISA performance are trunk noise and the quality and strength of the DTMF tones generated by the off-premises endpoint itself. If the system cannot recognize a DTMF digit, the call is automatically sent to the primary Attendant.

When a DISA user calls an extension number, the call rings as a direct ring-in call, even if the called endpoint is busy or in Do Not Disturb. The DISA caller hears music or ringing (determined by a system-wide option in Database Programming) until the Transfer Available or Transfer Busy timer expires. Then, if the call is not answered, it recalls the called endpoint's Attendant. If the called endpoint is forwarded, the call follows the programmed forwarding path.

When a hunt group pilot number receives a call through DISA, the call rings or circulates according to how the hunt group is programmed (i.e., linear or distributed).

If a caller dials a valid hunt group pilot number that has no members assigned to it, the call automatically rings at the primary Attendant endpoint until the Abandoned Call timer expires. If the call is not answered before the Abandoned Call timer expires, the call is disconnected.

Security Codes

DISA trunks can be assigned security codes (up to eight digits in length) that are required for access to the system. The installer can program separate codes for each DISA trunk group to be used during day and/or night modes.

NOTE To prevent unauthorized access to the outgoing trunks, ***all*** trunk groups using DISA should have a security code.

During database programming, the programmer can determine the number of times that a caller may unsuccessfully attempt to enter a security code and/or dial an extension number. If the user does not succeed within the determined number of attempts, the call will be disconnected (if the security code is invalid) or transferred to the primary Attendant (if the extension number is invalid).

Using DISA

NOTE If DTMF decoders are unavailable when a DISA call is received, the incoming DISA call is automatically sent to the primary Attendant.

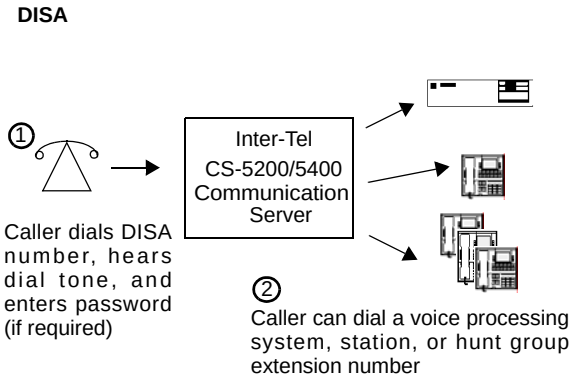
To use DISA:

1. From a DTMF endpoint, dial the phone number of the DISA trunk. When the call is answered by the system, you hear system intercom dial tone.

   If you hear a single progress tone, enter the appropriate (day or night) DISA security code, followed by pound (#).

2. Dial an extension number or a hunt group pilot number. (To call the primary Attendant, dial 0.) You hear music or ringing until the call is answered.

Figure 12. *DISA Example*



Inter-Tel Endpoint Features

The following sections describe how to use Inter-Tel endpoint features.

Volume Controls

On Inter-Tel endpoints, volume is controlled in the following ways:

- On Model 8600, 8620/8622, and 8660 endpoints, illustrations of speakers (and) represent higher and lower volume levels. Press the end of the button to lower the volume and the end of the button to raise the volume.
- The other Inter-Tel endpoints have separate VOL UP and VOL DOWN keys.

To change volumes on an Inter-Tel endpoint:

Press the appropriate button to raise or lower the volume, using one of the procedures listed below. A confirmation tone will alert you when you have reached the highest or lowest possible volume. On display endpoints, the display shows VOLUME LEVEL X. The "X" represents the level and changes as the volume is raised or lowered.

- **To change handset intercom voice volume:** Adjust the volume while on an off-hook (handset) intercom call.
- **To change handsfree intercom voice and paging volume:** Adjust the volume while on an on-hook (speakerphone) intercom call.
- **To change handset outside call voice volume:** Adjust the volume while on an off-hook (handset) outside call.
- **To change handsfree outside call voice volume:** Adjust the volume while on an on-hook (speakerphone) outside call.
- **To change headset intercom voice volume:** *(Model 8620 and 8660 endpoints Only)* Adjust the volume while using the headset and on an intercom call.
- **To change background music volume:** Adjust the volume while listening to music through the endpoint speaker. The selected background music volume level is automatically saved.
- **To change alerting tone (ring tone) volume:** Adjust the volume while the endpoint is ringing or idle. ***OR,*** while on-hook, press both edges of the Volume button to hear the currently programmed volume. Then adjust the volume.
- **To change handset progress tone volume:** Press the desired arrow while listening to intercom dial tone through the handset.
- **To change speakerphone progress tone volume:** Press the desired arrow while listening to intercom dial tone through the speakerphone.

To return an Inter-Tel endpoint to default volume levels:

While on- or off-hook, enter the Default Endpoint feature code (394). ***If off-hook,*** hang up. The display shows ENDPOINT DEFAULTED.

NOTE	Entering this feature code also cancels Do-Not-Disturb, manual call forwarding, background music, ring intercom always, all calls following account code, headset mode, and queue requests; and restores handsfree mode, pages, hunt group calls, and system forwarding.

Selectable Ring Tone

The tone of the endpoint ring signals (all tones except call waiting) can be changed by the user to create distinctive ringing. If endpoints are placed close together, changing the tone makes each endpoint's ring easier to recognize. On all Inter-Tel endpoints, the tone is changed by entering a feature code and a code, as described below.

There are ten ring tone options (0–9). Selection 0 will turn off the ring signals.

To change endpoint ring tone:

1. While on-hook, enter the Program Ring Tone feature code (398). The display shows SELECT RING TYPE (0–9) OR SCROLL.
2. **To select a specific ring tone:** Enter a number 1–9 for the desired ring tone. The display shows RING TYPE X SELECTED.

   To scroll through the tones: Press the low end of the Volume button or the **PREVIOUS** button to scroll backward through the tones. Press the high end of the Volume button or the **NEXT** button to scroll forward. (You cannot scroll to selection 0, you must enter it as described below.) The display shows RING TYPE X SELECTED.

   To turn off ringing: Enter **0** or press the **RINGER OFF** menu button. The display shows RING TYPE OFF SELECTED.
3. Lift and replace the handset or press the pound button (**#**), both ends of the Volume button, or the **ACCEPT** button to exit. The selected tone will be heard when the endpoint rings (unless ringing was disabled). The display shows RING TYPE X SAVED.

Extension Number, Username, Time and Date Display

When a display endpoint is idle, the extension number, username, time, and date are displayed. While on a call, in Do-Not-Disturb, or unconditionally forwarded, other displays are shown. In these circumstances, use the following procedure to redisplay the date, time, username, and extension number for five seconds.

To display the date, time, username, and extension number:

On a Model 8600, 8620, 8660, or 8662 endpoint, press the **Special** button and enter the Display Time/Date feature code (300). The date, time, username, extension number, and endpoint status are displayed for 5 seconds. If the endpoint is operating in SIP mode, code 300 will display the IP address of the endpoint.

"All Transient Displays" Endpoint Flag

The "All Transient Displays" endpoint flag, when enabled, allows all transient call handling displays to appear on the endpoint display. If it is disabled, the CALL TRANSFERRED TO XXXX and MESSAGE LEFT FOR XXXX transient displays does not appear.

Each transient display appears for 5 seconds before another display can take its place. Disabling the flag allows high-traffic stations such as Attendants to change displays more quickly after a message is left by the endpoint user or after a call is transferred.

This endpoint option cannot be programmed by the user. It is a database-programmable flag.

"DKTS Alternate Transient Display Timer" Endpoint Flag and Timer

As an alternative to (or in addition to) disabling the call transfer and message transient displays, as previously described, the programmer can use a combination of an endpoint flag and a timer to control ***all*** of the endpoints' transient displays (not just the call transfer and message displays). The "DKTS Alternate Transient Display Timer" endpoint flag, if enabled, allows all transient displays to be controlled by the "DKTS Alternate Transient Display" timer.

The “DKTS Alternate Transient Display” timer can be set to 1–255 tenths of a second (0.1–25.5 seconds). The default value is 10 tenths of a second (1 second). This timer affects only those Inter-Tel endpoints with the “DKTS Alternate Transient Display Timer” flag enabled.

“Transient Call Indication On Call Answer” Endpoint Flag

This programmable endpoint flag determines whether the endpoint user sees a call display when answering a call by pressing a secondary extension button or by reverse transferring. If enabled, the display shows if the call was ringing, recalling, transferred, or holding at the other endpoint.

User-Programmable Feature Buttons

NOTE This feature does not apply to single line endpoints.

Individual Inter-Tel endpoint buttons can be designated “user-programmable” in the keymaps during database programming. The installer can program the default feature codes, and the endpoint user can reprogram the feature codes as desired. Default endpoint feature codes are shown on page 321. Up to 35 user-programmable endpoint buttons can be programmed to enter any of the general feature codes.

Inter-Tel display endpoints have a special FWD key if the buttons are in the default state, however, it can be programmed to use any of the Forward feature codes. When the FWD button is pressed, the display shows a menu of call forwarding options. The user must then select the desired option by pressing the corresponding button next to the display. If the FWD button is programmed to use any other Forward feature code (355-358), the forwarding options will not be displayed when the FWD button is pressed. Any Inter-Tel endpoint user can make any user-programmable button a FWD button that uses any one of the forwarding feature codes (355-358).

Secondary extension buttons (described on page 74) can be assigned to user-programmable buttons during keymap programming. If so, the endpoint user can determine the primary endpoint that is associated with the secondary extension button by using the feature button programming procedures given below.

To display the current button entries:

1. While on-hook, enter the Review Keys code (396). The display shows PRESS THE KEY TO REVIEW.
2. Press the feature or Speed Dial button(s) to be displayed. The display shows the feature, username, or speed dial location name and KEY VALUE: ***(feature code, extension number, or location code)***. For a secondary extension button, the display shows SECONDARY: ***(endpoint).***

To return the buttons to default values:

While on- or off-hook, enter the Feature Key Default feature code (395). ***If off-hook,*** hang up. The display shows FEATURE KEYS DEFAULTED.

To program a feature code in a user-programmable button or assign a primary endpoint to a secondary extension button:

1. While on-hook, enter the Program Keys feature code (397). Display endpoints show PRESS THE KEY TO PROGRAM.
2. Press the desired feature or secondary extension button. The display shows the current feature, endpoint, or speed dial location name and KEY VALUE: ***(feature, extension, or location code)***.

Enter the feature code or extension number to be stored under that button. (***If programming the*** FWD ***button,*** only Call Forwarding feature codes 355-358 will be accepted.) You hear a single progress tone when the programming is completed. Display endpoints show the newly programmed feature. If you attempt to program a non-programmable button or enter an invalid code, you will hear repeating reorder tones, and the feature code assigned to the button will remain unchanged. Display endpoints show NON-PROGRAMMABLE KEY or FEATURE CODE INVALID.

NOTE If you do not enter a feature code before the Long Interdigit timer expires, and the feature code assigned to the button is not changed.

3. To program other buttons, repeat the procedure.

To create a *Speed Dial location* in a user-programmable button:

1. While on-hook, enter the Program Keys feature code (397). Display endpoints show PRESS THE KEY TO PROGRAM.
2. Press the desired feature button. The display shows the current feature, user, or speed dial location name and KEY VALUE: ***(feature or name)***.
3. Enter the Station Speed Dial feature code (382) or the System Speed Dial feature code (381). The display shows SELECT STN SPEED or SELECT SYS SPEED.
4. Enter the desired Speed Dial bin number (0–9 for endpoint, 000–999 for system). The display shows the current contents of that bin.
5. To program a new number in a Station Speed Dial bin, follow the instructions given on page 191. Administrators can use the procedures on page 33 to program System Speed Dial locations.

Standard/Alternate Keymap Switching

In Database Programming, each Inter-Tel endpoint is assigned a standard keymap and can also have an alternate keymap. The user can switch keymaps by entering a feature code.

Having two keymaps provides the user with access to more features or trunks. In most situations, the user would have one button programmed with the Switch Keymap feature code (399) in each keymap so that it would be easy to change the keymap. (If the user-programmed button has a lamp, the lamp is lit when the alternate keymap is active.)

When keymaps are switched, any user-programmable buttons in the maps retain their user-programmed values; they are not returned to default during the switch. However, if the keymaps do not have the same user-programmable buttons in the same positions, the location of individual buttons may change when the keymaps change.

If a user switches keymaps during an outside call, the call will appear on the appropriate trunk or Call button for that keymap. The button assignment may not be the same for both keymaps. For example, it could appear under a Call button on one map and an individual trunk button on the other.

If a button is not available in the currently active keymap when a call rings in, the user will still see the correct display, hear ringing, and can answer as usual.

To switch between keymaps when the endpoint is idle:

While on-hook, enter the Switch Keymap feature code (399). The display shows STANDARD KEYMAP IS ACTIVE or ALTERNATE KEYMAP IS ACTIVE.

To switch between keymaps during a call:

While on a call, press the Special button and enter the Switch Keymap feature code (399). The display momentarily shows STANDARD KEYMAP IS ACTIVE or ALTERNATE KEYMAP IS ACTIVE.

Automatic Call Access

This feature allows an Inter-Tel endpoint user to determine the way incoming calls are answered by entering a feature code to select the type of call access. The four variations are as follows:

- ***No Automatic Call Access:*** The user hears intercom dial tone when the handset is lifted and must press a Call or individual trunk button (or the ANSWER button) to answer an outside call, or press the IC button (or Call button, if there is no IC button) to answer an intercom call.
- ***Automatic Intercom Call Access Only:*** The user can answer ringing intercom calls by simply lifting the handset, but outside calls must be answered by pressing a Call button, an individual trunk button, or the ANSWER button.
- ***Automatic Outside Call Access Only:*** The user can answer ringing outside calls by lifting the handset, but ringing intercom calls must be answered by pressing the IC button (or Call button, if there is no IC button).

Automatic Access For All Calls: The user can answer any ringing call by lifting the handset. If no call is ringing, the user hears intercom dial tone when the handset is lifted. (This is the way single line endpoints work. When the system is in the default state, all Inter-Tel endpoints have this type of call access.).

NOTE In all variations, users can receive handsfree intercom calls (if enabled).

The selected option determines how all types of ringing intercom or outside calls (direct calls, transferred calls, recalls, etc.) are answered. If more than one call is ringing at the endpoint, the first call received is the first answered.

When programmed for automatic outside call access, a user with allowed answer, but without ring in, for a ringing trunk must always press an individual trunk button for that trunk or enter the Automatic Trunk Answer feature code (350) to answer the incoming call. Transferred calls and recalls can be answered by lifting the handset.

Camped-on calls cannot be answered by simply lifting the handset or pressing the Speaker button. For example, an endpoint is programmed to automatically answer ringing outside calls, but requires pressing the IC button to answer ringing intercom calls. If a private intercom call rings in and is immediately followed by an outside call ringing in, the display shows the intercom call message, and the outside call camps on. The intercom call also camps on when the handset is lifted. The user can then choose between the camped on calls by pressing either the IC button or the Call or individual trunk button (or ANSWER button).

The automatic call access options outlined below can be programmed at Inter-Tel endpoints only. Single line endpoints are designed to automatically answer ringing intercom and outside calls by lifting the handset and cannot be changed.

To program outside call access:

To change the current outside call access option to its opposite (toggle on or off), enter the Automatic Trunk Access On/Off feature code (360). You hear a confirmation tone. The display shows AUTO TRNK ACCESS ON (or OFF).

To program intercom call access:

To change the current intercom access option to its opposite (toggle on or off), enter the Automatic Intercom Access On/Off feature code (361). You hear a confirmation tone. The display shows AUTO IC ACCESS ON (or OFF).

Music-On-Hold and Background Music

The Music-On-Hold feature not only makes waiting on hold as pleasant as possible, but it assures the holding party that the call is still connected.

Endpoint users can listen to background music by entering the Background Music feature code (313).

The system can be equipped with one optional external music sources for the Music-On-Hold feature. The music source can be a customer-provided radio, tape player, or other device connected to the Music On Hold (MOH) jack on the back of the Inter-Tel CS-5200/5400 unit. When a music source is installed, music-on-hold is enabled or disabled in Database Programming. If music is not desired, the system can be programmed for tick-tones or silence on hold. (The Background Music feature uses the music source connected to the unit only).

NOTE In some circumstances, there may be broadcast restrictions associated with the music heard by callers on hold. Check with the music's original distributor and/or the radio station for copyright and broadcast restrictions concerning music-on-hold.

In a network, each node has its own music source(s). If a caller on Node 1 is holding for a user on Node 2, the caller hears the music on node 2. Note that if a caller is holding for a user on Node 1 and the call moves to Node 2 (due to a transfer, forward, or recall), the user will stop hearing the music on Node 1 and will begin hearing the music on Node 2.

The music-on-hold option that will be heard by outside callers on the trunks in the trunk group can be set for music, silence, tick tones, ringback, or silence. Throughout the manual, the term “music” refers to the selected option.

Background music is interrupted for calls, pages, endpoint programming, and ringing.

NOTE If you receive complaints from IP endpoint users about losing background music, there may be a firewall issue. Contact your local Inter-Tel dealer for assistance.

To turn endpoint background music on or off:

While on- or off-hook, enter the Background Music On/Off feature code (313). ***If off-hook,*** hang up. The display shows BACKGROUND MUSIC ON (or OFF).

Multilingual Capability

NOTE This feature requires 0 feature units, but it is installer-programmable to prevent unintentional language changes by users in an all-English system.

The system provides a choice between American English, British English, Spanish, and Japanese prompts and displays. The system selects the language to use for each call, as determined by the trunk, endpoint, and voice processing system programming, as described below.

Endpoints

Language Selection

The system can be programmed to use a Primary Language and a Secondary Language. The available languages are American English, British English, Mexican Spanish, and Japanese. An endpoint flag in Database Programming determines the language that will be used by each endpoint.

For example, if the endpoint is programmed for American English, all Inter-Tel endpoint displays will appear in American English. Also, when the endpoint is used for calling a voice processing system application, the voice prompts will be in American English (unless overridden by a Call Routing Announcement as described on page 143). If programmed for Japanese, the displays will be in Japanese (Katakana) characters and the voice prompts will be in Japanese (unless overridden). By default, all endpoints are set for the system's Primary Language.

All displays and default messages in the system are provided in American English, British English, Japanese, and Spanish. Endpoint-programmed messages, including those programmed through the administrator's endpoint, can include English/Spanish or Japanese characters, or a combination. In displayed lists, such as directories, the English/Spanish characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list.

When programming a feature that requires a time and date, an English/Spanish endpoint user will enter the date in the order "month, day, year" and the time in the order "time, AM/PM." The Japanese endpoint user will enter the date as "year, month, day" and the time as "AM/PM, time." The displays show the time and date differently, as well. For example, the English/Spanish display will show the time and date as "12:25 TUE NOV 28" and the Japanese display will show "TUE 11/28 12:25."

Secondary Language Selection

A field titled "Secondary Language" is provided for each endpoint in the system. This field corresponds to the Change Language feature (301). This feature toggles between the System Primary Language and the endpoint Secondary Language, or it can specify a language. This allows any endpoint in the system to have its own secondary language or use the System Secondary Language, giving the system the ability to support more than two languages.

If an endpoint's Secondary Language field is programmed as Use Primary Language, the Change Language feature will do nothing because the endpoint will toggle between the System Primary Language and the endpoint Secondary Language (the System Primary Language).

If an endpoint's Secondary Language field is programmed as Use Secondary Language, the Change Language feature will toggle between the System Primary Language and the endpoint's Secondary Language, which is the System Secondary Language. This state is the system default.

If an endpoint's Secondary Language field is programmed as Japanese, the Change Language feature will toggle between the System Primary Language and the endpoint Secondary Language, which is Japanese.

The Language field for endpoints indicates the language the endpoint is currently set to. This field used to toggle between the Use Primary Language and Use Secondary Language. It can

be set to any specific language along with the Use Primary Language and Use Secondary Language. A side effect of changing the Language field is that if you change it to Japanese at the same time the endpoint Secondary Language field is set to Spanish, then the user will have no way to get back to Japanese if they enter the Change Language feature code. This situation occurs because the first time the user enters the feature code, the system will toggle the endpoint to the Use Primary Language. The next time the user enters the feature code, the system will toggle the language to the endpoint's Secondary Language, which is Spanish. To avoid this situation, simply change the endpoint's Secondary Language to Japanese and the endpoint's Language field to Japanese.

NOTE Setting an endpoint's Secondary Language field to a specific language will not work across nodes unless all nodes in the system are at least 5.2F6 or later. This is because the older systems do not understand specific languages and expect to receive only Primary Language or Secondary Language values.

Trunks

A flag in Database Programming determines the language that will be used by each trunk. The language choices are Use Primary Language, Use Secondary Language, American English, British English, Japanese, or Spanish. This field can be set to any specific language so that the system can support more than two languages. If the trunk is programmed for the Primary Language, callers who reach a voice processing system application will hear the voice prompts in the Primary Language (unless overridden by a Call Routing Announcement as described on the following page). If programmed for the Secondary Language, the voice prompts will be in the Secondary Language (unless overridden). By default all trunks are set for the Primary Language.

NOTE Setting a trunk or digit translation Language field to a specific language will not work across nodes unless all the nodes in the Inter-Tel network are at least v5.2F6 or later. This constraint exists because the older Inter-Tel systems do not understand specific languages and expect to receive only Primary Language or Secondary Language values.

Do-Not-Disturb and Reminder Messages

The system has default Do-Not-Disturb and Reminder Messages in both languages. The messages that use Japanese characters can be reprogrammed only through an Administrator's endpoint or Database Programming. Refer to "System Programming" on page 20.

The language of the messages seen by the users, both when programming their endpoints and when calling another endpoint that is in Do-Not-Disturb, are determined by the endpoint's programmed language. That is, if an endpoint is programmed for Japanese, the user will see only Japanese messages when programing a message. If a Japanese-programmed endpoint calls an English-programmed endpoint that has selected Do-Not-Disturb message 02, the Japanese endpoint user will see the Japanese version of message 02. Of the IP endpoints, only the Model 8660 can use Japanese prompts.

When Do-Not-Disturb or reminder messages are reprogrammed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language Do-Not-Disturb message 02 is changed to "PAGE ME," a similar message should be programmed for the Secondary Language Do-Not-Disturb message 02.

Voice Processing System

When a voice processing system application receives a call from an endpoint or trunk, the system tells the application which language is programmed for that device. For example:

- If a trunk programmed for American English rings in to an application, the voice processing system will play the American English prompts.
- If an endpoint programmed for Japanese calls Voice Mail, the user will hear Japanese prompts.
- If an endpoint programmed for American English receives a call on a trunk that is programmed for Japanese, and then transfers the call to Voice Mail, the caller (using the trunk) will hear Japanese voice prompts.
- If a Japanese endpoint is forwarded to Voice Mail, a caller on an American English endpoint or trunk will hear the "American English" prompts (the user-recorded mailbox greeting will be heard in the language in which it was recorded) when the call is forwarded.

When using a Call Routing Announcement application with digit translation, the individual voice processing system applications assigned to the digits can be programmed to override the device language and provide prompts in one language only. Using this method, you can program a Call Routing Announcement tree that offers callers a choice between languages. For example:

- The Call Routing Announcement application could have a greeting that says, "Thank you for calling. For English prompts, press 1. NIHONGO WA, 2 WO OSHITE KUDASAI (for Japanese, press 2)."
- The digit translation for digit 1 would lead to an application that overrides the calling device's programming and uses only American English prompts.
- The digit translation for digit 2 would lead to an application that overrides the calling device's programming and uses only Japanese prompts.

In the example above, the digit translations could be nodes that lead to various other American English-only or Japanese-only applications. Or, the first level can give more choices, such as English Voice Mail or Automated Attendant and Japanese Voice Mail and Automated Attendant. Either way, the individual applications or nodes can be programmed to play only one language or they can use the device's language, as needed.

Multi-Language Feature on Network Operation

Nodes do not have to use the same Primary and Secondary languages because the Voice Mail system installs all existing language prompts, not just prompts for the languages designated as Primary or Secondary. Therefore, for calls across network nodes, if the language does not match between the two nodes, the called Voice Mail system searches for the designated language in its system in the following order; Primary language, Secondary language, American English, British English, Japanese, and Spanish and uses the designated language. If the designated language does not exist in the Voice Mail system, the system uses the default Primary language instead.

Directories

If Multilingual Support is enabled, directory users will be able to enter English/Spanish and Japanese (Katakana) characters, as needed. Procedures for using the directories are given on page 193.

In directories, the English characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list, after the English names.

Change Language Feature Code

A user can change the assigned language for the endpoint by entering the Change Language feature code only when the endpoint is idle.

To change the endpoint language:

Single line endpoints: Lift the handset and enter the Change Language feature code (301) to change your endpoint between the Primary and Secondary Language, as desired. (To verify the current language, you can call a voice processing system application that does not override the device language.)

Changing an endpoint's language automatically changes any display. For example, if an endpoint changes from English to Spanish while in Do-Not-Disturb mode with message 02, the display would change from American English message 02 to Spanish message 02.

Intercom Calls

NOTE When the procedures tell you to hookflash, quickly press and release the hookswitch. If you press the hookswitch to hang up, hold it down until the SL Hookflash Maximum timer expires (default value is 1.2 seconds); otherwise, the system recognizes it as a hookflash.

The intercom (IC) feature allows the user to place endpoint-to-endpoint calls that can be answered either in handsfree mode or in private, or non-handsfree, mode. A user that reaches a busy endpoint can camp on, request callback queue, or leave a message. As described in this section, other features that apply to both outside and IC calls include call waiting, call transfer, reverse transfer, call forwarding, and placing calls on hold.

The network allows handsfree intercom calls when calling from one node to another, unless the call camps on to the node before being sent to the other node.

Programming for Private Intercom Calls

A user places private IC calls by pressing the pound (#) button before dialing the extension number. Or, the endpoint can be programmed to always send and/or receive private calls using the Ring Intercom Always or Handsfree Disable features.

Ring Intercom Always

An endpoint user can always place private calls by programming the endpoint with the Ring Intercom Always feature code. While this feature is enabled, the called party hears repeating double tones. To answer, the called party must lift the handset or press the Speaker button, ANSWER button, or IC button. If the endpoint does not have an IC button, the call will appear under a Call button. In the default database, all single line endpoints have this feature enabled.

To turn ring intercom always on or off:

Single line endpoints: Lift the handset. Enter the Ring Intercom Always On/Off feature code (377).

Handsfree Enable/Disable

An Inter-Tel endpoint user can always receive private calls by disabling the endpoint Handsfree Answering feature using the Handsfree On/Off feature code, as described in the following paragraph. The endpoint user hears repeating double tones when receiving an intercom call. To answer while Handsfree Mode is disabled, the user must lift the handset or press the Speaker, ANSWER, or IC button.

To enable or disable handsfree mode:

While on-hook, enter the Handsfree On/Off feature code (319). The display shows HANDSFREE MODE ON (or OFF).

Endpoint-To-Endpoint Calling

Receiving Intercom Calls

To receive an intercom call on an Inter-Tel endpoint:

If you hear a double tone and a call announcement (handsfree call), and the Speaker button is lit, respond handsfree or lift the handset. (Display endpoints show IC TO ***(username)*** to identify the source of the call.)

If you hear repeating double tones (private call), lift the handset, or press the Speaker, ANSWER, or IC button to respond handsfree. (Display endpoints show INTERCOM CALL FROM ***(username)*** to identify the source of the call.)

Model 8660 or 8662: Instead of answering the call, you may press one of the following menu buttons:

— SEND TO V-MAIL: This option appears only if you have a Voice Mailbox. Pressing this button sends the call directly to your mailbox greeting.

— IC CALL TO DND: Pressing this button sends Do-Not-Disturb tones to the caller and allows you to program a Do-Not-Disturb message. If using a display endpoint, the caller sees DO-NOT-DISTURB. For detailed instructions about using Do-Not-Disturb, refer to page 200.

To receive an intercom call on a single line endpoint:

When you hear repeating double tones, lift the handset.

To receive a transferred-to-hold intercom call:.

NOTE If the endpoint does not have an IC button, the call will appear under a Call button.

Inter-Tel endpoints: When the IC button (or Call button) is fluttering and the display shows ***(calling endpoint)*** TFR FROM ***(transferring endpoint)***, lift the handset and press the IC button (or Call button). Or, while on-hook, press the IC button (or Call button) to speak handsfree. You are connected to the caller.

Single line endpoints: When you hear a page announcing that a call is holding at your endpoint, lift the handset (at your endpoint) and enter the Individual Hold feature code (336). You are connected to the caller.

Placing Intercom Calls

When placing an intercom call, begin dialing before the Dial Initiation timer expires. If the timer expires, the system drops the connection and sends reorder tones.

To place an intercom call:.

NOTE In the procedure below, if you want to place a private (non-handsfree) call to an Inter-Tel endpoint, press the pound (#) button before dialing the extension number.

1. For all Inter-Tel endpoints:

   To use the handset: Lift the handset. If the endpoint has a display it shows ENTER EXTENSION NUMBER.

   To use the speakerphone: Skip to step 2 (begin dialing). The Speaker button lights. The display shows ENTER EXTENSION NUMBER.

   Model 8660 or 8662: Lift the handset or begin dialing as described above. The display shows ENTER EXTENSION NUMBER. You may press one of the following menu buttons:

   — IC DIRECTORY: Press this button to use the Intercom Directory feature. Refer to page 193 for instructions.

   — OUTSIDE CALL: If you would rather make an outside call, press this button and refer to the instructions on page 153.

   Single line endpoints: Lift the handset. (If the DTMF decoders are busy, you hear silence. Hang up and try again.)

2. Dial an extension number. The number can be 0 for the Attendant, an endpoint extension number, or a hunt group pilot number. Display endpoints show the number dialed. If you dial too slowly, the Inter-digit timer may expire and you will hear reorder tones. One of the following will occur:

   a. ***If calling a handsfree Inter-Tel endpoint,*** speak after you hear a double tone. The display shows IC TO ***(username).***

   b. ***If placing a private call or calling a single line endpoint, a hunt group, or an Inter-Tel endpoint with handsfree disabled,*** you hear repeating double tones until the call is answered. The display shows CALL RINGING FOR ***(username).*** When the call is answered, the display shows IC TO ***(username). If you dial an invalid number,*** you hear reorder tones. Display endpoints show INVALID NUMBER. If you do not have an assigned Attendant and you dialed 0, the display shows NO ATTENDANT PROGRAMMED. If you dialed a hunt group number with no assigned endpoints, the display shows NO MEMBERS IN HUNT GROUP.

   c. ***If the called endpoint is busy,*** the display shows ***(username)*** IS BUSY. You have the following options (in addition to the menu buttons described previously):

      1. **Disconnect:** Hang up and try later. ***If dialing handsfree (Inter-Tel endpoints only)***, press the Speaker button to disconnect.
      2. **Camp on:** Do not hang up, your call camps on. When the called endpoint is available, a private call is placed. Refer page 147 for details.
      3. **Request a callback (queue):** This is similar to camping on except that you hang up and wait for the busy endpoint to become available. (For more information, refer to page 147.)

   d. ***If you hear a repeating signal of four fast tones and a pause,*** the endpoint is in Do-Not-Disturb. You can use the Queue Callback feature or, if enabled on your

endpoint, use the Do-Not-Disturb Override feature to place a non-handsfree call to the endpoint by pressing the Special button and entering the Do-Not-Disturb Override feature code (373) or pressing the **OVERRIDE DND** menu button.

e. ***If the called endpoint is busy, in Do-Not-Disturb, or there is no answer,*** you can leave a message waiting indication with the endpoint itself or with the endpoint's message center. For details, refer to page 149.

Intercom Camp On and Queue Callback

Camp-on and queue requests allow the caller to wait for an available resource. A user waiting for a specific resource (a trunk or a endpoint) will be served before a user waiting for a group that contains that specific resource (trunk group or hunt group). This includes camped on Emergency Call feature (911/999) calls – if the Emergency Call feature uses a trunk group, requests for specific trunks will be processed ahead of the emergency call.

Camp On

When a user calls a busy endpoint or hunt group, the system sends a busy signal. The caller can wait off-hook to camp on (after the Camp-On timer expires) and hear music while waiting until the called endpoint is available. The system periodically sends Call Waiting signals to the busy endpoint(s).

A user can camp on to busy endpoints on other nodes and will hear the other node's music-on-hold while camped on.

If an endpoint enables Do-Not-Disturb while an intercom call is camped on, the camped-on caller is removed from the camped on state and that caller receives Do-Not-Disturb indications (see page 162). Intercom callers cannot camp on to an endpoint that is in Do-Not-Disturb.

To camp on to an extension number:

- **All Inter-Tel endpoints:** If you hear a busy signal when calling an extension number and want to camp on, do not hang up. If Music-On-Hold is enabled, you hear music while camped on. When the endpoint is available, a private call is automatically placed, and you hear repeating double tones until the call is answered. The display shows WAITING FOR ***(username)*****.**
- **Model 8660 or 8662:** You may press one of the following menu buttons:
  - — LEAVE MESSAGE: This button appears only if you have called an endpoint. Press this button to leave a Message Waiting indication at the endpoint. Refer to page 149 for details.
  - — LEAVE VOICE MAIL: This button appears only if the called endpoint has a Voice Mailbox. Press this button to call the endpoint's Voice Mailbox.
  - — QUEUE: Press this button to request a callback when the resource is available, as described on the next page.

Busy Endpoint Callback Queue

When a called endpoint is busy or in Do-Not-Disturb, the caller can apply the Queue Callback feature and hang up until the endpoint becomes available. This can be done even if the call camps on. Each endpoint can apply only one active Queue Callback request at a time.

The Queue Callback feature can also be used when calling a hunt group if all endpoints are unavailable.

A user cannot queue onto busy resources on another node.

Queue callbacks must be answered before the Queue Callback timer expires. If a callback is not answered, the queue is canceled. If the endpoint is busy when called back, the queue request is placed behind any other waiting queue requests.

Queue callbacks do not follow forwarding and are not blocked by Do-Not-Disturb mode.

To request a callback from a endpoint:

1. **Inter-Tel endpoints:** When you hear a busy signal or Do-Not-Disturb signal (a repeating signal of four fast tones and a pause) when calling an extension number, press the **QUEUE** menu button. Or press the Special button, enter the Queue Callback feature code (6), and hang up. The display shows QUEUE REGISTERED FOR ***(username).***

   Single line endpoints: When you hear a busy signal or Do-Not-Disturb signal when calling an extension number, hookflash and enter the Queue Callback feature code (6). Then hang up.

2. When the queued endpoint is available, your endpoint will ring. Display endpoints show ***(username)*** IS NOW AVAILABLE. Lift the handset or press the **ANSWER** button. A private call is automatically placed to the queued endpoint.

   Model 8660 or 8662: You may press one of the following menu buttons:

   - CANCEL QUEUE: To cancel the queue request, press this button without lifting the handset.
   - ANSWER: You may press this button instead of lifting the handset to answer the queue callback using the speakerphone.

To cancel a queue request before the queued endpoint becomes available:

- **Inter-Tel endpoints:** While on-hook, enter the Queue Callback feature code (6). The display shows QUEUE REQUEST CANCELED.
- **Single line endpoints:** Lift the handset, enter the Queue Callback feature code (6), and hang up.

Endpoint-to-Endpoint Messages

Intercom callers may leave a message waiting indication if a called endpoint is busy, if there is no answer, if the endpoint is in Do-Not-Disturb, or when they are connected to or placed on hold by another endpoint. Users are allowed to leave message for, and respond to messages from, users on other nodes. There are two messaging options:

- **Have the called party return your call.** Display endpoints show the source and time of the message. When the called party responds to the message indication, a call is automatically placed to your endpoint.
- **Leave a message with the called party's message center.** Display endpoints show that a message was left with the endpoint user's assigned message center. When the called party responds to the message indication, a call is automatically placed to his or her message center.

To signal that a message is waiting, a called Inter-Tel endpoint's MSG button flashes, and the display shows the number of waiting messages. Each time the MSG button is pressed, the display shows the message source for each of the waiting messages in the order they were received. For messages from endpoints, the display shows MSG: ***(endpoint)*** and the date and time of the message. For messages from Voice Mailboxes, the display shows XX MESSAGES FROM MBOX XXXX to indicate the number of waiting messages in each mailbox that left a message. (This is especially helpful at endpoints with multiple mailboxes.) For single line endpoints, a system programming option can be enabled that sends six short message waiting tones when the user lifts the handset or presses the hookswitch.

NOTE Models 8600, 8620/8622, 8660, or 8662 have a Message Lamp located on the upper right-hand corner of the endpoint. If programmed for the Message Waiting feature, this lamp flashes/lights whenever the MSG button flashes/lights. Refer to page 92 for details.

Any endpoint, voice processing system application, hunt group, or off-node device can be designated as the message center for an endpoint. However, an endpoint cannot be programmed as its own message center.

If the designated message center is a Voice Mail hunt group, the Voice Mail hunt group is called after the Message Wait timer expires. When the Voice Mail unit answers the call, the called party's "mailbox" is automatically dialed. The caller can then leave a message in the mailbox. The called party's MSG button flashes, and the message display indicates that the message was left by the Voice Mail hunt group.

Each endpoint user can leave message waiting indications at more than one endpoint. If more than one message is received from one endpoint, the message display shows only the first message, and all other requests are ignored.

When a endpoint is forwarded or has system forwarding, and a caller leaves a Message Waiting indication after calling the forwarded endpoint, the message indication appears at the original endpoint instead of the one that received the forwarded call.

Leaving Messages

To leave a message waiting indication:

1. When calling an endpoint, if you hear a busy signal, Do-Not-Disturb signal (repeating signal of four fast tones and a pause), or the call is not answered:

   Inter-Tel endpoints: Press the MSG button. Or press the Special button and enter the Message feature code (365). The endpoint receives a Message Waiting indication. The display shows HANG UP OR WAIT FOR MESSAGE CENTER.

   Single line endpoints: Hookflash and enter the Message feature code (365).

2. **To have the called party call you:** Hang up or press a trunk button or the IC button to disconnect before the Message Wait timer expires. The display shows MESSAGE LEFT FOR ***(username).***

To leave the message with the called party's message center: Do not hang up. When the Message Wait timer expires, a private call is automatically placed to the called party's message center. (If the message center is a Voice Mail hunt group, the called party's mailbox is automatically dialed after the Voice Mail unit answers the call.) Leave your message with the message center and hang up. The called endpoint receives message waiting indications. If the message center does not answer the call (that is placed after the timer expires), the display will show that the message was from your endpoint and you will be called when the endpoint user responds to the message indications. The display shows MESSAGE LEFT FOR ***(username).***

NOTE If the endpoint you are calling does not have a designated message center, you will hear dial tone immediately after pressing the MSG button. The endpoint will receive a Message Waiting indication.

Silent Messages

Silent messages can be placed while on- or off-hook without making an intercom call to the endpoint.

To leave a silent message:

Model 8660 or 8662: While on-hook, press the MSG button. Then press the **LEAVE MESSAGE** menu button. The display shows LEAVE MESSAGE ON EXTENSION. Enter the desired extension number. The number is shown on the display. (If desired, you can press the **IC DIRECTORY** menu button to use the intercom directory to look up a number. Refer to page 193 for instructions.)

Other Inter-Tel endpoints: While on-hook, enter the Silent Message feature code (367). Then dial the extension number of the desired endpoint.

Single line endpoints: Lift the handset and enter the Silent Message feature code (367). Then dial the extension number of the desired endpoint and hang up.

Canceling a Message Waiting Indication That You Left

Occasionally, before the person you called responds to your message, you may want to cancel a Message Waiting indication that you left on their endpoint. If the message was left with the person's message center, you cannot cancel the Message Waiting indication; only the message center can cancel that message. Use the following procedure to cancel a message that you left on an endpoint.

To cancel a message you left:

1. **Model 8660 or 8662:** While on-hook, press the MSG button. Then press the **CANCEL MESSAGE** menu button. The display shows CANCEL MESSAGE ON EXT#. If desired, you can press the **IC DIRECTORY** menu button to use the intercom directory to look up a number. Refer to page 193 for instructions.

   Other Inter-Tel endpoints: While on- or off-hook at your endpoint, enter the Cancel Message feature code (366). The display shows CANCEL MESSAGE ON EXT #.

   Single line endpoints: Lift the handset and enter the Cancel Message feature code (366).

2. Enter the extension number of the endpoint that has the message indication that you want to cancel. You hear intercom dial tone if off-hook, or confirmation tone if on-hook. The display shows MESSAGE CANCELED FOR ***(username). (***If a message was not present at the called endpoint, you hear reorder tones and the display shows NO MESSAGES TO CANCEL.)

Responding to Messages

Viewing Waiting Messages

To view received messages at a display endpoint:

1. If your MSG button is flashing, one or more messages are waiting and the display shows YOU HAVE XX MESSAGES.

   Model 8660 or 8662: While on-hook, press the **VIEW MESSAGES** menu button. Then press **PREVIOUS** or **NEXT** to scroll to the desired message.

   Other Inter-Tel endpoints: While on-hook, press the MSG button repeatedly to view waiting messages.

2. A displayed message will show MESSAGE RECEIVED FROM EXT XXXX. ***If desired,*** you can answer or cancel a message while it is displayed, as described below.

Answering Messages

To answer messages at a display endpoint:

When the desired message is displayed (as described above), press the # button or the **REPLY** menu button while on- or off-hook. Depending on how the message was left, an intercom call is placed to the endpoint that left the message or to your message center.

NOTE If, when you respond to the message, the called endpoint is unavailable (does not answer a private call, is busy, or is in Do-Not-Disturb), your MSG button continues to flash (and the display indicates a waiting message) unless you immediately leave a message before hanging up or cancel the message after hanging up. The message waiting indications are canceled automatically only when you have actually connected with the called endpoint. Message indications from Voice Mail will only be cleared if you save or delete the waiting Voice Mail message. The MSG button will re-light if you clear the message indication without saving or deleting the Voice Mail.

If the MSG button continues to flash, there is another message (display shows the next message). Repeat step 1.

To answer messages at a non-display endpoint or single line endpoint:

1. **Inter-Tel endpoints:** If you see a flashing endpoint MSG button, press the MSG button. Depending on how the message was left, an intercom call is placed to either the endpoint that left the message or your message center.

   Single line endpoints: If you hear single line message waiting tones (six tones) after lifting the handset or hookflashing when the endpoint is idle, enter the Message feature code (365). Depending on how the message was left, an intercom call is placed to either the endpoint that left the message or your message center.

   If the called endpoint does not answer, is busy, or is in Do-Not-Disturb, you may hang up or leave a message at that endpoint before hanging up. You will continue to receive message waiting indications (MSG button flash or tones), unless you left a message while attempting to retrieve the message or canceled the message after hanging up. The message waiting indications are canceled when you are actually connected with the called endpoint. Message indications from Voice Mail will only be cleared if you save or delete the waiting Voice Mail message. The MSG button will re-light if you clear the message indication without saving or deleting the Voice Mail message.

2. If message waiting indications continue, there is another message. Repeat this procedure.

Canceling a Waiting Message.

NOTE Message indications from Voice Mail will only be cleared if you save or deletes the waiting Voice Mail message. The MSG button will re-light if you clear the message indication without saving or deleting the Voice Mail message.

To cancel a displayed message without answering at an Inter-Tel endpoint:

1. When the message you want to cancel is displayed (as described on the previous page), remain on-hook and press the asterisk (*) button or the **DELETE** menu button. The message is canceled.
2. If the MSG button continues to flash, there is another message. The display shows the next message. Either respond to it or cancel it.

To cancel a message without answering at a single line endpoint or without displaying messages at an Inter-Tel endpoint:

1. If you receive message waiting indications, enter the Cancel Current Message feature code (368). The message is canceled.
2. If you continue to receive message waiting indications, there is another message. Either respond to it or cancel it.

Alternate Message Source

The Alternate Message Source feature was developed to enable a voice mail unit to leave messages through an endpoint location or hunt group that is designated as its alternate message source. When a message is left on the voice mail unit for an endpoint user that has an assigned mailbox, the called endpoint receives the message waiting indications. If it is a display endpoint, the display shows MESSAGE RECEIVED FROM (alternate message source) rather than from the voice mail circuit. When the endpoint user retrieves the message, an intercom call is placed to the alternate message source.

An endpoint's message center or alternate message source does not need to be on the same node as the endpoint. It can be an endpoint, hunt group, Voice Processing application, or any off-node device.

Outside Calls

When a trunk is selected for receiving or placing an outside call, the voice channel is seized and cannot be used by any other endpoint (unless the Conference feature is used, see page 169). If the desired trunk is busy, the user can camp on or request a queue callback. Other features that apply to both outside and intercom calls are discussed later in this section of the manual. They include placing calls on hold, call waiting, call transfer, reverse transfer, conferencing, and call forwarding. Refer to page 123 for an explanation of outgoing-access, allowed-answer, and ring-in assignments.

Placing Outside Calls

Inter-Tel endpoints can be programmed to select a trunk, a trunk group, or ARS when a Call button is pressed. In the default state, all Call buttons are programmed for ARS access.

On display endpoints, the dialed number is displayed with hyphens separating the toll field, equal access field, area code, office code, hookflashes, pauses, asterisks, pounds, Centrex codes, and/or absorbed digits. When the system absorbs local trunk digits, the digits are displayed even when they are not dialed. (For example, if 423 is absorbed and 6767 is dialed, 423-6767 is displayed.).

NOTE When placing a call, begin dialing before the Dial Initiation timer expires. If the timer expires, the system drops the trunk connection and sends repeating reorder tones. This prevents a trunk from being tied up accidentally.

To place an outside call:

1. Lift the handset. (Inter-Tel endpoint users can dial on-hook by skipping this step.)
2. Select an outgoing trunk, using one of the methods below. The associated individual trunk or Call button flashes slowly. (If on-hook, the Speaker button is lit.).

   NOTE You must have outgoing access to a trunk to seize it.

   Model 8660 or 8662: Press the OUTGOING menu button.

   Any Inter-Tel endpoint: Select a trunk using one of the following methods:

   - Press an individual trunk button for direct access.
   - Enter a trunk group access code (92001-92208) or press a trunk group button. This selects a trunk in the chosen trunk group. (If the group has not been programmed, the display shows NO TRUNKS IN TRUNK GROUP.)
   - If your endpoint is programmed to select a trunk group when a Call button is pressed, press a Call button for outgoing access.
   - Refer to the Automatic Route Selection (ARS) procedure on the next page.
   - Enter the Outgoing Calls feature code (8). This automatically selects an outgoing trunk according to the programmed outgoing access mode for your endpoint.

   Single line endpoints: Select a trunk using one of the following methods:

   - Enter the Outgoing Call feature code (8). This automatically selects an outgoing trunk according to the programmed outgoing access mode for your endpoint.
   - Enter a trunk group access code (92001-92208).
   - Refer to the Automatic Route Selection (ARS) procedure on the next page.

3. You hear one of the following signals:
   - **Outside dial tone:** Manually dial, speed dial, or redial the desired phone number or use the outside directory. (Display endpoints show the numbers dialed. When

dialing is ended and the call is determined to be valid, the display shows the elapsed time and call cost.) ***If you hear repeating reorder tones,*** you dialed a restricted number. Also, if you dial too slowly and the Interdigit timers expire, the call may be dropped, and you will hear repeating reorder tones. ***If using an Inter-Tel endpoint that is on-hook,*** you may lift the handset to speak privately. Go to the next step. On Inter-Tel endpoints, an individual trunk or Call button flashes slowly and the display shows the call cost and elapsed time.

Model 8660 or 8662 endpoint users may press one of the following menu buttons:

— OUTSIDE DIR: This button appears only if you are using ARS. Press the button to use the outside directory as described on page 193.

— STN SPEED DIAL: Press this button to use an Station Speed Dial number as described on page 188.

— SYS SPEED DIAL: Press this button to use a System Speed Dial number as described on page 187.

— REDIAL: Press this button to redial the last number dialed (or saved) as described on page 197.

- **Single progress tone:** Enter a forced account code using the dialpad buttons or a pre-programmed Speed Dial button (refer to page 158). The display shows ENTER ACCOUNT CODE and the digits as they are entered. You hear outside dial tone when the code is accepted. On Inter-Tel endpoints, an individual trunk or Call button flashes slowly.
- **Repeating reorder tones:** You are restricted from the trunk group chosen; choose another trunk group. Or, you are restricted to using ARS only; try again using ARS (see page 154). The display shows OUTGOING ACCESS DENIED.

4. After dialing the call, you can place it on hold, transfer it, set up a conference, enter optional account codes, etc., as described in this manual. The Model 8660 or 8662 has menu buttons for easy use of outside call features.

   If you dialed an invalid or restricted phone number, you hear reorder tones and the display shows INVALID OUTSIDE NUMBER or RESTRICTED OUTSIDE NUMBER.

5. **To use the speakerphone, if equipped:** ***If off-hook,*** speak handsfree when the party answers. ***If on-hook,*** press the Speaker button and hang up.

   To change from speakerphone to handset: Lift the handset and speak. The Speaker button goes off. You may later transfer back to the speakerphone by pressing the Speaker button and hanging up.

6. **To terminate the call:** ***If on-hook,*** disconnect by pressing the Speaker button. ***If off-hook,*** hang up.

To place a call using automatic route selection:

1. **Inter-Tel endpoints:** While on- or off-hook, enter the Automatic Route Selection feature code (92000), or press the ARS button. You hear dial tone.

   Single line endpoints: Lift the handset and enter the Automatic Route Selection feature code (92000). You hear a single progress tone followed by dial tone.

NOTE	If required, enter a forced account code using the dialpad or a pre-programmed Speed Dial button (see page 158). Display endpoints show ENTER ACCOUNT CODE and the digits as they are entered. You hear a progress tone when the code is accepted.

2. Dial the phone number. Use the MUTE button to backspace if you make a mistake. Include the area code, if needed. You hear one of the following signals.
   - **Single progress tone:** Your call is being placed. The associated individual trunk or Call button flashes slowly. Model 8660 or 8662 endpoint users have the same options as described for outgoing calls on the previous page.
   - **Busy signals, then music:** All of the trunks in the route group are busy. Do one of the following:
     1. Camp-on and wait for the trunk.
     2. **Request a queue callback:** The system places your endpoint in a queue for the trunk. When you hear ringing and the display shows TG XXXX ***(or group name)*** IS NOW AVAILABLE, lift the handset; Inter-Tel endpoint users may also need to press the fast flashing Call button or individual trunk button (or the ANSWER button). You hear dial tone and digits being dialed. The associated individual trunk or Call button flashes slowly.
   - **Repeating reorder tones:** You are restricted from the number dialed or from using the route selected. The display shows INVALID OUTSIDE NUMBER or RESTRICTED OUTSIDE NUMBER. If the number that you dialed does not match any of the programmed ARS route group patterns, the display shows UNABLE TO ROUTE CALL.

Receiving Outside Calls

To receive an outside call on an Inter-Tel endpoint:

You will hear one of the following signals when receiving an outside call.

- **Repeating long tones and a Call button or individual trunk button is flashing at the fast rate:** A call is ringing in. Lift the handset and/or press the flashing individual trunk button, flashing Call button, or ANSWER button. (Model 8660 or 8662 endpoint users that have a programmed Voice Mail extension can press the **SEND TO V-MAIL** menu button to transfer the call to Voice Mail.) The individual trunk or Call button flashes slowly during the call. Display endpoints show ***(trunk name)*** RINGING IN.
- **Intercom call or page announcing a call and a Call button or individual trunk button is flashing at the fast rate:** A call has been transferred to your endpoint. Lift the handset and/or press the flashing individual trunk button, flashing Call button, or ANSWER button. (Model 8660 or 8662 endpoint users that have a programmed Voice Mail extension can press the **SEND TO V-MAIL** menu button to transfer the call to Voice Mail.) The individual trunk or Call button flashes slowly during the call. Display endpoints show TG XXXX ***(or group name)*** TFER FROM EX XXXX ***(or username).***
- **An individual trunk button is flashing at the fast rate, there is no ring signal, and you have allowed answer for the trunk. You may hear ringing on another endpoint:** Press the fast-flashing individual trunk button as described above or enter the Automatic Trunk Answer feature code (350). (The ANSWER button cannot be used to answer these calls.)

To receive a call on a single line endpoint:

You hear a page announcing a transfer and/or repeating long double tones: A call is ringing in. Lift the handset; you are connected to the caller.

You hear a call ringing in on another endpoint and you have allowed answer: Lift the handset and enter the Automatic Trunk Answer feature code (350). You are connected to the lowest-numbered trunk ringing in for which you have allowed answer.

To receive a call that was transferred to hold:

When you hear a page announcing that an outside call is holding at your endpoint (a Call button or individual trunk button is fluttering):

Inter-Tel endpoints: Lift the handset and/or press the fluttering Call button or individual trunk button, or press the ANSWER button. You are connected to the caller.

Single line endpoints: Lift the handset and press the Hold button or enter the Individual Hold feature code (336). You are connected to the caller.

On-Hook Monitoring

An Inter-Tel endpoint user with a speakerphone can monitor the call (listen to a recorded message, wait for the call to be answered, or wait on hold), and then speak handsfree when answered.

To use on-hook monitor:

1. While on a call, press the Speaker button and hang up. ***If you do not want to be heard and if the MUTE button is not lit,*** press the MUTE button or **MUTE** menu button, or press the Special button and enter the Microphone Mute On/Off feature code (314). You can hear the other party (if the microphone is muted, you cannot be heard). The Speaker button is lit (and the MUTE button is lit if the microphone was muted).
2. **To return to the conversation:** You may lift the handset or speak handsfree. (If the microphone was muted, press the lit MUTE button or the **UNMUTE** menu button to speak. The MUTE button goes off.)

Group Listen Feature

The Group Listen feature allows an Inter-Tel endpoint user to transmit a conversation over the endpoint speaker while in handset or headset mode. This allows other people in the room to listen to the conversation. However, the endpoint microphone remains disabled so that only the headset or handset user can speak.

This feature cannot be used on a handsfree call. The user must be on a call using the handset or a headset before entering the feature code. Group Listen cannot be used on single line endpoints.

To turn the group listen feature on or off during a call:

While on a call using the handset or a headset, press the Special button and enter the Group Listen feature code (312). You hear a confirmation tone, and the display shows GROUP LISTEN ON or GROUP LISTEN OFF. The other party will not hear the confirmation tone.

NOTE If using a headset on a Model 8600, 8620/8622, 8660, or 8662 endpoint when Group Listen is enabled, the volume control adjusts the volume of the headset, not the speaker.

When the Group Listen feature is active in handset mode, the Speaker button lamp will remain unlit. This allows the user to place the call into handsfree mode at any time during the call by pressing the Speaker button. When the feature is active in headset mode, the Speaker lamp is lit. Pressing the button will disconnect the call.

The Group Listen feature code can be programmed under a feature button just like any other feature. The button functions as a toggle. If the button has a lamp, it is lit when the feature is activated and unlit when the feature is turned off.

Trunk Camp On and Busy Trunk Callback (Queue)

Camp-on and queue callback requests allow the caller to wait for an available resource. A user waiting for a specific resource (a trunk or a endpoint) will be served before a user waiting for a group that contains that specific resource (trunk group or hunt group). This includes camped on Emergency Call feature (911/999) calls.

Trunk Camp On

When a user attempts to select a busy outgoing trunk or trunk group, the system sends a busy signal. The user can wait off-hook to camp on until the trunk is available.

A user can camp on to busy resources on other nodes and will hear the other node's music-on-hold while camped on. When the system has several routing options for a call, it tries to use each route, in order, until it finds a free route. If it is unable to find a free route, the system tries once again to use the first route. If the first route is still busy, the system camps on to the first route.

To camp on to an outgoing trunk group:

1. When you hear a busy signal after selecting an outgoing trunk, do not hang up. You camp on and hear music until a trunk in the trunk group is available. The display shows WAITING FOR ***(trunk name).***
2. When you hear a single progress tone and outside dial tone, dial the desired phone number. The associated Call button or individual trunk button flashes slowly.

Busy Trunk Callback (Queue)

If you attempt to select a busy outgoing trunk group and hear a busy signal or if you camp on, you can request a queue callback and hang up until the system signals your endpoint that a trunk in the trunk group is available. Each endpoint can place only one queue request at a time. If a second request is made, the first request is canceled and replaced by the second request.

A user cannot queue onto busy resources on another node.

Queue callbacks must be answered before the Queue Callback timer expires. If a callback is not answered, the queue is canceled. If the endpoint is busy when a trunk in the queued trunk group becomes available, the queue request is placed at the end of the queue list.

To queue a busy outgoing trunk:

1. **Inter-Tel endpoints:** When you hear a busy signal while selecting a trunk. Or if you are camped on, press the **QUEUE** button, or press the Special button and enter the Queue Callback feature code (6) and hang up. The display shows QUEUE REGISTERED FOR ***(trunk name).***

   Single line endpoints: When you hear a busy signal while selecting a trunk or if you are camped on, hookflash and enter the Queue Callback feature code (6). Hang up.
2. Your endpoint rings when the queued trunk is available. Display endpoints show TG XXXX *(or group name)* IS NOW AVAILABLE.
3. **Inter-Tel endpoints:** Lift the handset and/or press the fast-flashing Call button, individual trunk button, or the **ANSWER** button. Then dial the desired phone number. The associated Call button or individual trunk button flashes slowly. If ARS was used when the call was placed originally, the number is dialed automatically.

   Single line endpoints: Lift the handset and dial the desired number. If all DTMF decoders are busy when your endpoint is called back, the system sends repeating reorder tones instead of dial tone, and the queue is canceled. If ARS was used when the call was placed originally, the number is dialed automatically.

To cancel a queue before the callback:

Inter-Tel endpoints: While on-hook, press the **CANCEL QUEUE** button or **QUEUE** button. Or, enter the Queue Callback feature code (6). The display shows QUEUE REQUEST CANCELED.

Single line endpoints: Lift the handset and enter the cancel Queue Callback feature code (6). Hang up.

Account Codes

Account codes are 3- to 12-digit codes that can be used in conjunction with the Station Message Detail Recording (SMDR) feature to aid record keeping. Account codes can be assigned to measure endpoint use and/or to identify calls for customer billing. There are Standard, Forced, and Optional types of account codes. The account code, when used, is recorded in the SMDR report as soon as the call is completed. If more than one account code is entered during a call, the last account code that was entered is recorded.

Database-Programmed Account Codes

Any endpoint can be assigned a standard account code or one of six types of forced account codes (four are ARS dependent). Or, if desired, the endpoint can lack an associated account code.

There can be up to 512 standard and 512 forced account codes in the database.

The account code types are:

- **Standard:** Standard account codes automatically appear in the SMDR printout to identify calls from this endpoint. The user is not required to enter any digits during the call.
- **Forced – All Calls Validated:** If this type of account code is enabled, the user must enter a forced account code before an outside call can be placed. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***
- **Forced – All Calls Non-Validated:** With this account code type, the user must enter an account code before placing an outside call. The code is not checked against any lists, and the call is allowed as soon as the code is entered. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***
- **Forced – Local Toll Calls Validated:** This account code type requires the user to enter an account code after dialing a local toll call number (a toll call within the local area codes) or a long distance call when using ARS. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***
- **Forced – Local Toll Calls Non-Validated:** This account code type requires the user to enter an account code after dialing a local toll call number (a toll call within the local area codes) or a long distance call when using ARS. The code is not checked against any lists, and the call is allowed as soon as the code is entered. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***
- **Forced – Long-Distance Toll Calls Validated:** When this account code type is enabled, the user only has to enter an account code if the system detects that a long distance call (a toll call outside of the local area codes) has been dialed when ARS is used. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***

- **Forced – Long-Distance Toll Calls Non-Validated:** When this account code type is enabled, the user only has to enter an account code if the system detects that a long distance call (a toll call outside of the local area codes) has been dialed when the ARS is used. The code is not checked against any lists, and the call is allowed as soon as the code is entered. ***Endpoints with this account code type cannot forward calls to outside phone numbers.***
- **None:** If the user will not be required to enter an account code, this option is selected. The user may still use optional account codes or enable the Account Code For All Calls Following feature, as desired.

If the system is installed in a network, the network validates account codes against the account code table on the same node as the caller. The account code follows the call as it moves from node to node and appears on every SMDR record associated with the call. However, if an optional account code is entered during the call, that account code will be used in the SMDR report.

If ARS Dial Rule #5 (Add Account Code) is enabled, the account code must be entered ***before*** the end of dialing for it to be included in the dialed digits. Forced, standard, and "all calls following" account codes are automatically entered before the digits. If using an optional account code, it must be entered after seizing a trunk, but before dialing the number, to be included in the ARS digits.

Optional Account Codes

Optional account codes can be entered at any time during a call. These user-defined codes are not preprogrammed, but must be within the maximum length set in programming. If entered, optional account codes are printed in the SMDR report for that call in place of standard or forced account codes that may have been used.

To enter an optional account code after selecting a trunk or while on an outside call:

1. **Inter-Tel endpoints:** Press the Special button and enter the Optional Account Code feature code (390). Display endpoints show ENTER ACCT CODE. The outside party, if any, does not hear you enter the code.

   Single line endpoints: Hookflash and enter the Optional Account Code feature code (390). The outside party, if any, hears music until step 2 is completed.

2. Enter the account code using the dialpad; Inter-Tel endpoint users may press a Speed Dial button to enter an account code number that has been stored in that Speed Dial number location. (Display endpoints show numbers. You hear a single progress tone when the code is accepted. Single line users are reconnected when the system accepts the account code. (If an account code is entered that has fewer than the programmed maximum number of digits, press # to return to the call. Pressing * will cancel the account code entry.)

Enabling the Account Codes for All Calls Following Feature

You can use the Account Code For All Calls Following feature to enter an account code once and apply it to all calls placed from that endpoint until the feature is canceled. The account code is stored in system memory and is used for all calls made by that endpoint. It affects other account code programming as follows:

Forced: If forced account codes are enabled for the endpoint, the "all calls following" account code is used for all calls and the user will not be prompted to enter an account code until the "all calls following" code is canceled.

NOTE If account codes are validated, and the Account Code For All Calls Following is an invalid code, calls will not be allowed at the endpoint until the code is removed or reprogrammed.

- **Standard:** If standard account codes are enabled for the endpoint, the "all calls following" account code overrides the standard code.
- **None:** If no forced or standard account codes are enabled for the endpoint, the "all calls following" code will be used as an optional account code.
- **Optional:** In the event that this feature is in effect and an optional account code is also entered, the optional account code will override the "all calls following" account code for that call only. All subsequent calls will be associated with the "all calls following" account code.

To cancel this feature, the feature code is entered without an account code (just press # to terminate programming).

To enter an account code and use it for all following calls:

1. **Inter-Tel endpoints:** Enter the Account Code For All Calls Following feature code (391). Display endpoints show ENTER ACCT CODE.

   Single line endpoints: Lift the handset and enter the Account Code For All Calls Following feature code (391).

2. Enter the account code using the dialpad; Inter-Tel endpoint users may press a Speed Dial button to enter an account code number that has been stored in that Speed Dial number location. ***If an account code is entered that has fewer than the programmed maximum number of digits,*** press # to terminate the code. Display endpoints show numbers. You hear a single progress tone when the code is accepted.

To cancel the account code for all calls following feature:

1. **Inter-Tel endpoints:** Enter the Account Code For All Calls Following feature code (391). Display endpoints show ENTER ACCT CODE.

   Single line endpoints: Lift the handset and enter the Account Code For All Calls Following feature code (391).

2. ***If on-hook,*** lift and replace the handset, or press # to exit. ***If off-hook,*** hang up.

Placing Calls On Hold

There are several ways to place intercom and outside calls on hold. While on hold, the caller hears music (if equipped). There are three hold applications in the system:

- **Individual hold** places the call on hold at one endpoint. It can then be picked up directly at that endpoint or it can be picked up at another endpoint using the Reverse Transfer feature.
- **System hold** places the call on hold so that it can then be picked up directly at any Inter-Tel endpoint that has an individual trunk button and has allowed-answer and/or outgoing access for the associated trunk or at the endpoint that placed it on hold. Attempting to place a conference on system hold will place the conference on individual hold. Intercom calls cannot be placed on system hold. Single line endpoints cannot place calls on system hold; attempting to do so at a single line endpoint will place the call on individual hold. In a network setting, when a user puts a trunk on system hold, only that user and users on the same node as the trunk can access the call.
- **Consultation hold** allows a single line endpoint user to pause during a call, use other system features, and then return to the caller by hookflashing. If the user attempts to hang up after placing a call on consultation hold, the call recalls the endpoint.

If a call remains on hold until the Hold timer expires, it recalls the endpoint where it is on hold, and the Recall timer is started. If it is still unanswered when the Recall timer expires, it recalls the endpoint's Attendant, and the Abandoned Call timer is started. (If the endpoint does not have an Attendant, the call continues to recall at the endpoint that placed it on hold.) If the call

is not answered before the Abandoned Call timer expires, the call is disconnected by the system.

For users' convenience, the system has two Hold timers: ***Hold*** and ***Hold - Alternate***. In the default state, the Alternate timer is set for a longer time period than the Hold timer. However, both timers are programmable. The "Alternate Hold Timer" endpoint flag determines which timer each endpoint will use. If the flag is disabled, the endpoint uses the Hold timer. If it is enabled, the endpoint uses the Alternate timer.

NOTE Inter-Tel endpoint users can avoid the Hold timer by muting the microphone during a call instead of placing the call on hold. If this is done, the caller will not hear Music-On-Hold and will not recall the endpoint.

Individual Hold

To place an intercom or outside call on individual hold:

1. While on the call:

   Inter-Tel endpoints: Press the Hold button or press the Special button and enter the Individual Hold feature code (336). You hear intercom dial tone and the Call button, individual trunk button, or IC button flutters.

   Single line endpoints: Hookflash and enter the Individual Hold feature code (336). You hear intercom dial tone.

2. Hang up or place another call.

To return to the caller on individual hold:

Inter-Tel endpoints: Lift the handset and/or press the fluttering IC button for intercom calls, or the Call button or individual trunk button (or the ANSWER button) for outside calls.

Single line endpoints: Lift the handset and enter Individual Hold feature code (336).

System Hold

NOTE This feature does not apply to single line endpoints.

To place an outside call on system hold (Inter-Tel endpoints only):

1. While on a call, press the Special button and enter the System Hold feature code (335). You hear intercom dial tone, and the associated Call button or individual trunk button flutters.
2. Hang up or place another call.

To return to a call on system hold (Inter-Tel endpoints only):

At any Inter-Tel endpoint that shows a fluttering individual trunk button for the call and has allowed-answer and/or outgoing access for that trunk, lift the handset and/or press the fluttering button.

At the Inter-Tel endpoint that placed the call on hold, press the fluttering individual trunk or Call button.

NOTE Intercom calls and conferences cannot be placed on system hold. If you attempt to do so, the call or conference will actually be placed on individual hold.

Consultation Hold

To use consultation hold (single line endpoints only):

1. While on a call, hookflash to place the call on consultation hold. You hear three short tones followed by dial tone.
2. You can place a call or enter a feature code.

> **NOTE** If you hang up while the call is on consultation hold, the call immediately recalls your endpoint. If you hang up after dialing an extension number, the call transfers to that endpoint.

3. Return to the caller on hold by hookflashing.

Hold Recall

To answer a hold recall:

When the recall rings at your endpoint, the display shows *(endpoint or trunk)* RECALLING. Lift the handset or press the ANSWER button. Single line endpoints are automatically connected; Inter-Tel endpoint users may need to press the flashing Call or individual trunk button.

Microphone Mute

Whether handsfree or using the handset, you can temporarily turn off your microphone while on a call. The call is still connected; you can hear the other party, but they cannot hear you. Since the call is not placed on hold, no timer is activated. The MUTE button is lit when the microphone is muted; the light will go off when you press the MUTE button to re-enable the microphone.

You cannot mute the microphone on your endpoint while your call is on hold at another endpoint.

> **NOTE** If you receive complaints from IP endpoint users about losing audio on muted calls, there may be a firewall issue. Contact your local Inter-Tel dealer for assistance.

Muting the endpoint microphone:

1. To temporarily turn off your microphone while on a call, press the MUTE button or **MUTE** menu button, or press the Special button and enter the Microphone Mute On/Off feature code (314). The MUTE button is lit, and the display shows MICROPHONE MUTE ON. If off-hook**,** do not hang up (unless you press the Speaker button first).
2. Press the lit MUTE button or **UNMUTE** menu button, or press the Special button and enter the feature code (314) to turn the microphone on. The MUTE button goes off, and the display shows MICROPHONE MUTE OFF.

Call Waiting

While an endpoint is in use, incoming intercom and outside calls camp on until the busy endpoint is available. The busy party hears a single Camp On tone every 15 seconds, unless the Camp On Tone timer is changed or Camp On tones are disabled at the endpoint.

A endpoint programming flag titled Camp On Indications allows Camp On tones to be enabled or disabled for incoming intercom and outside calls. This flag is programmed on an endpoint-by-endpoint basis.

The DID/E&M Receive Busy Instead Of Camp-On endpoint flag determines whether E&M and DID callers will receive busy signal or receive ringback and camp on when calling a busy

endpoint. In the default state, busy tones are disabled, and the callers will hear ringback while camped on to the called endpoint. This flag is programmed on a endpoint-by-endpoint basis.

To respond to call waiting using an Inter-Tel endpoint:

1. If, while on a call, you hear a single camp-on tone and/or see the IC button, a Call button, or an individual trunk button flashing rapidly, you have a call waiting. The display indicates the type of call that is waiting (intercom, outside, recall, etc.). If you are a hunt group member, the display shows the number of calls camped on to the hunt group. Do one of the following:
   - ***I****f you want to end the current call,* hang up. A waiting outside call rings as an incoming call; an intercom call rings as a private call. Answer as usual.
   - *If you want to place the current call on hold,* press the Hold button or press the Special button and enter the Individual Hold feature code (336). The Call button, individual trunk button, or IC button flutters (unless an intercom call is camped on, in which case the IC button flashes rapidly until the camped on call is picked up, then the IC button flutters). Answer the waiting call by pressing the flashing Call button, individual trunk button, or IC button.
   - *If using Model 8660 or 8662:* You may press one of the following menu buttons:
     — ANSWER: Press this button to end the current call and answer the ringing call.
     — SEND TO V-MAIL: This button appears only if you have a Voice Mailbox. Press this button to transfer the call to your mailbox.
     — IC CALL TO DND: Pressing this button will send Do-Not-Disturb tones to the caller. If using a display Inter-Tel endpoint, the caller will see DO-NOT-DISTURB.
2. **To return to the holding call:** Press the fluttering individual trunk button, Call button, or IC button.

To respond to call waiting using a single line endpoint:

When you hear a single camp-on tone every 15 seconds while you are on a call, another call is waiting. Do one of the following.

1. ***If you want to end the current call,*** hang up. The call rings at your endpoint. Lift the handset to speak to the waiting caller.

   If you want to place the current call on hold, hookflash and then enter the Individual Hold feature code (336). You are connected with the waiting caller.

2. To return to the first call on hold:

   If you want to end the current call, hang up. Return to the holding call by lifting the handset and entering the Individual Hold feature code (336).

   If you want to place the current call on hold and connect with the original call: Hookflash and then enter the Individual Hold feature code (336) twice.

To move a camped-on intercom call to Do-Not-Disturb:

While on a call, you hear call waiting signals:

Endpoints with menu buttons: Press the **DO-NOT-DISTURB**, or **IC CALL TO DND** menu button.

Other Inter-Tel endpoints: Press the DND button or enter a Do-Not-Disturb feature code (370 or 372). The DND button lights. The intercom caller is no longer camped on and receives Do-Not-Disturb indications.

Single line endpoints: Hookflash and enter a Do-Not-Disturb feature code (370 or 372). The intercom caller is no longer camped on and receives Do-Not-Disturb indications. Hookflash twice to return to the current call.

Call Transfer

Feature Codes

There are two feature codes for transferring intercom and outside calls to other endpoints, voice processing system applications, hunt groups, off-node devices, or outside phone numbers. The call transfer options are as follows:

- **Transfer to ring:** You can transfer intercom or outside calls to another endpoint, a voice processing system application, a hunt group, or an outside phone number.
- **Transfer to hold:** Either intercom or outside calls can be transferred to another endpoint and placed on hold using this feature.

Transfer to Park Locations

In addition, transfer-to-park locations can be set up by the installer. A transfer-to-park location is an extension number that is not equipped with an endpoint. Calls can be transferred to these locations and then reverse transferred by any endpoint user. If all station circuits are equipped, you cannot create a transfer-to-park location.

Transferring Conference Calls

An established conference can be transferred to an endpoint. While the transfer is taking place, the parties in the conference remain connected to each other and may converse. The transfer will appear at the destination endpoint in the same manner as any other transferred call along with a CONFERENCE TFR FROM ***(username)*** display and may be answered by the endpoint user.

Transfer to a System Forward

When a user transfers a call to the principal station of a system forwarding path, the Handsfree Announce System Forward system-wide flag determines what the caller will hear. If enabled, the caller will place a handsfree call to the principal station and can announce the transfer (the call does not enter the forwarding path). If the option is disabled, the transferring user will hear ringing and can announce the call only if it is answered by the principal station or one of the forwarding points.

Transfers and Outside Calls

If a user answers another call while a party is waiting on transfer hold, the waiting party will be moved to individual hold at that endpoint. If the Hold timer expires while a call is on transfer hold, the call will recall the endpoint. The user must return to the call on hold and begin the transfer process again. There may be some reduction in voice volume when an outside call is transferred to an outside phone number depending on the quality of the trunks in use.

Transfer-To-Connect Endpoint Flag

If the Transfer-To-Connect Allowed endpoint flag is enabled, an announced transfer call (including an announced transfer from Voice Mail) connects immediately with the destination once the transferring party hangs up. (If the flag is disabled, the recipient must press a Call button or the ANSWER button to answer the transferred call). If the user has a headset enabled, or if the user picks up the handset for the initial call and the transferring party disconnects, the

transferred party hears a single tone and then is immediately connected without any further action from the user. Calls will not automatically connect in handsfree speakerphone mode. This flag applies only to Inter-Tel endpoints and is disabled in the default state.

Transfer to Ring

To transfer a call or conference:

1. **Inter-Tel endpoints:** While on a call, press the TRANSFER button, or press the Special button and enter the Transfer to Ring feature code (345). Intercom dial tone is heard. The display shows TRANSFER CALL TO EXTENSION.

   Single line endpoints: While on a call, hookflash. Tones are heard, followed by intercom dial tone.

2. *EITHER*, Select an outgoing trunk group or press the OUTSIDE PHONE menu button, and dial the desired phone number. ***If all trunks in the trunk group are busy,*** select another trunk group or camp on and wait for a trunk. ***If you hear repeating reorder tones,*** you dialed a restricted phone number. To return to the caller on transfer hold, press the lit Call button, trunk button, or IC button (Inter-Tel endpoint) or hookflash twice (single line endpoint).

   OR, Dial the desired extension number or press a Speed Dial button, the **VOICE MAIL** menu button, or the **MESSAGE CENTER** menu button. Model 8660 or 8662 users can use the Directory feature by pressing the **IC DIRECTORY** menu button. The number can be an endpoint extension number, 0 for the Attendant, a hunt group pilot number, a Voice Mail extension number, or a transfer-to-park location number.

   a. **Transfer to an endpoint that is forwarded to Voice Mail:** You hear repeating double tones and the display shows DEST FORWARDED TO VOICE MAIL.

   b. **Transfer to Voice Mail:** The system waits for you to enter the mailbox number. The display shows ENTER MAILBOX. Enter the desired mailbox number. ***If you do not enter a mailbox number before you hang up,*** the caller will be connected to the Voice Mail unit and must enter the mailbox number after listening to the introductory voice prompts.

   c. **Transfer-to-park:** If transferring to a park location, complete the transfer. Then page the desired party and announce the call. The party must reverse transfer the call. Note that if the call is not answered, it will recall your endpoint if transferred directly, or it will recall the called park location's Attendant if transferred to hold.

3. ***If desired,*** wait for an answer and announce the call. If you are calling a device (such as Automated Attendant) that does not accept call announcements, the display shows HANG UP TO FINISH TRANSFER.

4. You have the following options:

   To complete the transfer: Hang up or press another Call button. The display shows CALL TRANSFERRED TO ***(username).***

   To return to the caller: Press the fluttering Call button, trunk button, or IC button (Inter-Tel endpoint) or hookflash twice (single line endpoint).

   To try another endpoint: Press the TRANSFER button or press the Special button and enter the Transfer to Ring feature code (345). Then dial another extension number.

   To transfer the call to hold when calling an endpoint (Inter-Tel endpoints only): Press the HOLD button or the **TRANSFER-TO-HOLD** menu button. Or press the Special button and enter the Individual Hold feature code (336). The call will not ring or send call waiting signals until the Hold timer expires.

Transfer to Hold

A call transferred to hold at an endpoint does not ring or send a display message while holding. After the Hold timer expires, the endpoint rings or sends Call Waiting signals. Also, calls transferred to hold do not recall the transferring party; they recall the receiving party's Attendant if unanswered after the Hold and Recall timers expire. Besides the procedure listed below, Inter-Tel endpoint users have an alternative method for transferring calls to hold; refer to step 4 in the previous procedure.

To transfer a call to hold:

1. **Model 8660 or 8662:** While on a call, press the **TRANSFER-TO-HOLD** menu button. The display shows TRANSFER CALL TO EXTENSION.

   Other Inter-Tel endpoints: While on a call, press the Special button and enter the Transfer To Hold feature code (346). The display shows TRANSFER CALL TO EXTENSION.

   Single line endpoints: While on a call, hookflash and enter the Transfer To Hold feature code (346).

2. Model 8660 or 8662 users can use the Directory feature by pressing the **IC DIRECTORY** menu button.
3. Hang up to complete the transfer.

To pick up a call that was transferred to hold:

If a call was transferred to hold at your endpoint:

Inter-Tel endpoints: When your IC button, a Call button, or individual trunk button is fluttering, lift the handset and/or press the fluttering button (or the ANSWER button for an outside call). You are connected to the caller.

Single line endpoints: Lift the handset and enter the Individual Hold feature code (336). You are connected to the call.

Transfer Recalls

If a call is transferred to another endpoint and is not answered before the appropriate Transfer timer expires (and if it was not transferred to hold), the call recalls the transferring endpoint's recall destination (defaults to the endpoint) and the Recall timer is started. The call rings until the Recall timer expires. If unanswered, it recalls the transferring party's Attendant, and the Abandoned Call timer is started. (If the transferring endpoint has no Attendant, the call continues to recall at the transferring endpoint.) If the call is not answered before the Abandoned Call timer expires, the call is disconnected by the system.

In a network, an endpoint's transfer recall destination can be an off-node device.

To answer a transfer recall:

Inter-Tel endpoints: When the recall rings at your endpoint, the display shows ***(username)*** RECALLING FROM ***(username)***. Lift the handset and/or press the ANSWER button. Press the medium-flashing Call button or individual trunk button, or press the ANSWER button if the call is not automatically connected.

Single line endpoints: If you hear a repeating signal of four tones and a pause, lift the handset. You are immediately connected.

Call Screening

Calls transferred from the Automated Attendant or a Call Routing Announcement application can be screened, announced, or unannounced. Separate programming flags in the database determine the methods used for transferring calls to endpoints with mailboxes, endpoints with extension IDs, and extensions without mailboxes or IDs.

When a call is received by Automated Attendant or Call Routing Announcement and the caller enters an extension number, the programmed Transfer Method determines how the call will be transferred. The Transfer Method flags can be programmed in the database. If allowed in mailbox programming, they can also be programmed by the mailbox user. The available Transfer Methods are as follows:

- ***Announce Only:*** The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the user answers the transfer, the voice processing system plays the caller's name and completes the transfer.
- ***Screened:*** The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the called party answers the transfer, the voice processing system plays the caller's name. The called party has the options of replaying the name, sending the call to Voice Mail if the extension has a mailbox, transferring the call to another extension, accepting the call, or rejecting the call.
- ***Unannounced:*** The call is transferred to the associated extension number without announcing the call. This method is applied in the default state.

In a network setting, the voice processing system can provide call screening for a destination extension on another node. However, the node where the voice processing system is connected must have an off-node device programmed for the destination extension and access to the remote node.

Receiving an Announced Or Screened Transferred Call: Depending on the Transfer Method programmed for your mailbox or extension ID, one of the following will occur when you receive a call transfer from Automated Attendant or Call Routing Announcement:

- **"Announce Only" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The voice processing system then places a private call to your endpoint. When you answer, it plays ***"You have a call from (caller's name)."*** It then completes the transfer, and the transferred call rings at your endpoint. Answer as usual.
- **"Screened" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The voice processing system then places a private call to your endpoint. When you answer, it plays ***"You have a call from (caller's name),"*** and gives you the following options:
  - — ***To accept the call,*** press **#** or the **ACCEPT** menu button. The call will ring at your endpoint.
  - — ***To replay the announcement,*** press **1** or the **REPLAY** menu button.
  - — ***To send the call to Voice Mail,*** press **2** or the **SEND TO V-MAIL** menu button. The caller is transferred to your mailbox and hears your personal greeting.
  - — ***To forward the call to another extension,*** press **3** or the **FORWARD** menu button. Then enter the extension number. The call is sent to the other endpoint. If that endpoint has screened or announced transfers, the caller's name is played again for that endpoint.
  - — ***To refuse the call,*** press ***** or the **REFUSE** menu button, or simply hang up. The caller receives a recording that says you are not available and offers them the option of leaving a message.

- **"Unannounced" Calls:** This is the default method for transferring a call. The call is transferred to your endpoint without any kind of announcement.

Reverse Transfer

Calls ringing or recalling at a endpoint, a hunt group, or a transfer-to-park location can be picked up at any other endpoint, using this feature. Calls on hold can also be picked up from endpoints and from transfer-to-park locations. A user can reverse transfer a call from a endpoint or a hunt group on another node.

If more than one call is ringing or holding at the endpoint or hunt group, a priority list determines which call is reverse transferred. Calls are selected in the following order, and if more than one call of the same type is at the endpoint, the calls are picked up in the order they were received:

1. Ringing calls
2. Camped-on calls
3. Holding outside calls
4. Holding intercom calls

If a call is reverse transferred from a hunt group announcement or overflow endpoint, and an endpoint in the hunt group becomes available, the call will be disconnected from your endpoint immediately when answered by the hunt group endpoint.

Group Call Pick-up: When the Group Call Pick-Up feature is enabled, a call ringing in to a hunt group or one of its endpoints can be picked up at any other endpoint. Users can enter the Reverse Transfer feature code (4) and dial a hunt group's pilot number to pick up a call that is ringing in to the hunt group's pilot number or to any endpoint within that hunt group. See page 118 for details about the Group Call Pick-Up feature.

NOTE Group Call Pick-up does not affect DSS lamp status any differently than standard hand group calls or individual calls.

There is a programmable endpoint flag called "Transient Call Indication On Call Answer" that determines whether the user sees a call display when reverse transferring a call (or using a secondary extension button). If the flag is enabled, the display indicates whether the call was ringing, recalling, transferred, or holding at the other endpoint.

To reverse transfer a call:

EITHER, Lift the handset (Inter-Tel endpoints can remain on-hook) and enter the Reverse Transfer (Call Pick-Up) feature code (4), then dial the extension or pilot number where the call is ringing or holding. You are automatically connected to the caller.

OR, Lift the handset (Inter-Tel endpoints can remain on-hook) and dial the extension or pilot number where the call is ringing or holding, then press the Special button or hookflash and enter the Reverse Transfer (Call Pick-Up) feature code (4). You are automatically connected to the caller.

Conference Calls

Users can establish multi-party conference calls without operator assistance. There can be up to four parties in a conference. In addition to the initiating endpoint, the conference can include any combination of up to three intercom and/or outside calls.

NOTE During a conference, some reduction in voice volume may be noticed, depending on CO trunk quality.

During a conference, if any user presses a dialpad button, the DTMF tones will be heard by all other parties in the conference. This allows conference callers access to DTMF-controlled devices.

Using the call transfer feature described on page 164, an established conference can be transferred to another endpoint. While the transfer is taking place, the parties in the conference remain connected to each other and may converse. The transfer will appear at the destination endpoint in the same manner as any other transferred call along with a CONFERENCE TFR FROM ***(username)*** display and may be answered by the party.

NOTE While this system is designed to be reasonably secure against CO trunk misuse by outside callers, there is no implied warranty that it is invulnerable to unauthorized intrusions. If the central office does not provide supervision, and does not disconnect the call when one party hangs up, making it possible for a caller to remain connected to a CO trunk circuit. If this happens, and the caller begins dialing, the call could be placed through the system and would then be billed to the system's owner. The system cannot check this type of call for toll restriction and may not register the call in SMDR. This problem could arise when a call is connected to a endpoint or when a call is in an unsupervised conference.

In a network setting, a user can build a conference with party members (endpoints and/or trunks) on other nodes. The conference circuits used to build the conference will be allocated from the originating party's node. Any party, not just the originating party, can add a party member to the conference.

- If the party who adds the new member is on the originating party's node, the party will be added to the conference circuit already allocated. This conference is still restricted to the four party limit.
- If the party who adds the new member is not on the originating party's node, a new conference circuit is allocated from the second node. Because this allows more than four parties in a conference, users should be warned that voice levels can be degraded as more parties are added to the conference.

Placing a Conference Call

To place a conference call while on a call with an Inter-Tel endpoint:

1. Press the CNF button, or press the Special button and enter the Conference feature code (5). The party is on conference wait hold (hears music) and the CNF button flutters. The display shows CALL NEXT PARTY TO CNF.

To place a conference call while on a call with a single line endpoint:

1. Hookflash and enter the Conference feature code (5). The party is on conference wait hold (hears music).
2. Place an intercom or outside call to another party (or return to a call on hold) to be included in the conference.

NOTE An existing conference is not a valid "party" for another conference.

To place the party on conference wait hold with an **Inter-Tel endpoint:**

Press the CNF button again. Or, press the Special button and enter 5 again.

To place the party on conference wait hold with a **single line endpoint:**

Hookflash and enter the Conference feature code (5). The party is on conference wait hold (hears music).

3. Repeat step 2 until all desired parties are on conference wait hold (or the maximum allowed number has been reached).
4. Connect all waiting parties in the conference:

To connect all waiting parties in the conference with an endpoint that has menu buttons:

Press the **CONNECT TO CONFERENCE** menu button. All parties are connected. The display shows CNF IN PROGRESS. The CNF button and a Call button flash slowly. Use the following menu buttons:

HOLD: Press this button to place the conference on hold.

DISCONNECT: Press this button to remove your endpoint from the conference. If there are no other endpoints in the conference, all parties are disconnected. If there is still another endpoint in the conference, the parties remain connected.

ADD PARTY: This button appears only if you have not reached the maximum number of allowed parties. Press this button to leave the conference parties connected while you place another call to be added to the conference.

MUTE: Press this button to switch the microphone on or off during the conference.

TRANSFER CNF: Press this button and enter an extension number to transfer the conference to another endpoint or the Voice Mail application.

To connect all waiting parties in the conference with another type of Inter-Tel endpoint:

Press the CNF button again. Or, press the Special button and enter 5 again. All parties are connected. Display endpoints show CNF IN PROGRESS. The CNF button and a Call button flash slowly.

To connect all waiting parties in the conference with a single line endpoint: When all parties are on conference wait hold, hookflash and enter the Conference feature code (5). All parties are connected.

NOTE If the number of parties in your conference exceeds the capacities of the system resources, you will hear reorder tone and see a display that tells you MAX NUMBER OF PARTIES EXCEEDED. To complete the conference setup, return to the parties on conference wait hold one by one (Inter-Tel endpoint users press the associated Call or IC button, single line endpoint users enter the Individual Hold feature code twice) and release parties until there are fewer than the maximum. Then repeat step 5 to connect the conference.

Add Parties to a Conference

NOTE Parties cannot be added when the maximum number of participants has been reached.

To add parties to an existing conference (any inside party) on an Inter-Tel endpoint:

1. During the conference, press the CNF button. The other parties remain connected. The Call button and CNF button flutter.
2. Place an intercom or outside call to the other party (or return to a call on hold) to be included in the conference and press the CNF button.
3. **To connect all parties in a conference:** Press the CNF button again.
4. **To add another party:** Repeat steps 1-3 again.

To add parties to an existing conference (any inside party) on a single line endpoint:

1. During the conference, hookflash. The other parties remain connected.
2. Place an intercom or outside call to the other party to be included in the conference (or return to a call on hold). Hookflash and enter the Conference feature code (5).
3. **To connect all parties in a conference:** Hookflash and enter the Conference feature code (5) again.
4. **To add another party:** Repeat steps 1-3 again.

Exiting a Conference

There are several options for leaving the conference:

- Exit the conference by hanging up. The other parties remain connected only if at least one is the endpoint of an inside party. You cannot return to the conference. If there are no inside party endpoints remaining in the conference, it is disconnected.
- Leave the conference and allow the outside parties to remain connected by pressing the CNF button or entering the Conference feature code. You can return to the conference at any time.
- End the conference and place all of the parties on individual hold. You can return to the parties one at a time.
- Place the entire conference on hold. The conferenced parties remain connected.

NOTE If a user attempts to place a conference call on system hold, the conference will be placed on individual hold.

Exiting and Re-Entering the Conference

To exit the conference and leave the other parties connected (any inside party) with an Inter-Tel endpoint:

During the conference, press the CNF button and hang up. The CNF button and a Call button flutters.

NOTE If all remaining parties are outside parties and the Hold timer expires while you are out of the conference, the conference recalls your endpoint. The recall rings at your endpoint and the CNF button flashes at the medium rate. The display shows CONFERENCE RECALLING. Press the CNF button to return to the conference. If the recall is not answered before the Recall timer expires, it will recall the Attendant.

To return to the conference:

Lift the handset and/or press the CNF button again.

To exit the conference and leave the other parties connected (any inside party) with a single line endpoint:

During the conference, hookflash and hang up.

> **NOTE** If the Hold timer expires while you are out of the conference, the parties recall your endpoint. When the recall rings at your endpoint, lift the handset to answer the recall. If the recall is not answered before the Recall timer expires, it will recall the Attendant.

To return to the conference: Lift the handset and/or enter the Conference feature code (5).

Ending the Conference and Placing All Parties on Hold

To end the conference and put all parties on hold (any inside party) with an Inter-Tel endpoint:

During the conference, press the CNF button and hang up. The CNF button and a Call button flutters. The parties are still connected in a conference.

To place the parties on individual hold: Press the Hold button or enter the Individual Hold feature code (336). You can then return to each party individually by pressing the associated Call or IC button.

To end the conference and put all parties on hold (any inside party) with a single line endpoint:

During the conference, hookflash and hang up. The parties are still connected in a conference.

To place the parties on individual hold: Lift the handset and enter the Individual Hold feature code (336). You can then return to each party individually by entering the Individual Hold feature code again.

Placing the Entire Conference on Hold

Any inside party involved in a conference can place the conference on hold at his or her endpoint. The other conference parties remain connected and can converse. The user that placed the conference on hold can then place calls or use system features while the conference is on hold. Then the user can return to the conference on hold. Note, however, that a conference may not be terminated while it is on hold.

Once a user has moved a conference to hold, the user may, if desired, establish another conference. Because each conference is established under a separate Call button, it is possible for the user to have access to any individual conference for further call processing. If the user elects to use the CNF button for conference access, the CNF button will rotate through the conferences in priority order. The CNF button will always reflect the status of the top-priority conference. The priority order for the CNF button when multiple conferences are in effect is:

- Conference or call on transfer hold
- Ringing (ring in, recall, or camp on) conference
- Conference on hold
- Active conference

To place the conference on hold (any inside party) during a conference call with an Inter-Tel endpoint:

Press the Hold button or press the Special button and enter the Individual Hold feature code (336). The conferenced parties remain connected. The call and CNF buttons flutter.

To place the conference on hold (any inside party) during a conference call with a single line endpoint:

Hookflash and then enter the Individual Hold feature code (336). The conferenced parties remain connected.

NOTE If you do not return to the conference before the Hold timer expires, the conference will recall your endpoint. If the recall is not answered, the conference will recall to your Attendant's endpoint. At the Attendant, the call will be terminated automatically after the Abandoned Recall timer if no inside parties are still in the conference and if it is not answered by the Attendant. (If the Attendant answers the call, a conference is re-established with the Attendant endpoint as one of the conference parties.)

To return to the conference with an Inter-Tel endpoint:

Press the Hold button, CNF button, or the fluttering Call button.

To return to the conference with a single line endpoint:

Lift the handset and enter the Conference feature code (5).

Record-A-Call

If your system is programmed with a Record-A-Call application, the endpoints can be programmed to use the Record-A-Call feature. It allows users to enter a feature code whenever they want to record an ongoing call in their designated Record-A-Call mailbox. Users can retrieve the recorded messages later, just as they would any other mailbox messages.

When a user requests the Record-A-Call feature, the system establishes a conference call with the current call parties and a mailbox. If there are no conference circuits available when the user requests Record-A-Call, or if there are already four parties on the call, the user hears reorder tones and cannot use the feature.

The Record-A-Call mailbox records the call as a Voice Mail message. All parties will be included in the recording. If desired, the Record-A-Call mailbox can be programmed to play a message announcing that the Record-A-Call feature is in progress. There can be separate messages for day and night modes.

To signal to the other parties that the Record-A-Call feature is in use, a system-wide Record-A-Call Tone flag can be enabled during system programming. If the flag is disabled, there will be no alerting tone. If enabled, the beep will occur periodically throughout the call. The Record-A-Call Tone Interval timer determines how often this tone is generated. If the timer is set to 0, the tone is generated only when the feature is first activated.

There are two ways an endpoint can be programmed to use this feature:

- The endpoint can be programmed to use its personal mailbox, or another mailbox, as the assigned Record-A-Call mailbox. Only this assigned mailbox can be selected. This state is the default programming for all endpoints.
- The endpoint can be programmed with a default mailbox, but with the option of selecting a different mailbox. If the user chooses to not enter a mailbox number, the system automatically selects the default mailbox.

In a network setting, the Record-A-Call destination does not have to be on the same node as the endpoint, but the voice processing system must be programmed with a mailbox for that endpoint.

When the requesting user hangs up, all parties are automatically disconnected. If all parties on the call hang up except the requesting user, an intercom call will remain connected between the requesting endpoint and the Record-A-Call application. This allows the user to make additional comments before ending the recording.

When the user turns off Record-A-Call or ends the call being recorded, the system delivers the message to the mailbox. The associated endpoint will receive Message Waiting indications as usual.

A monitored endpoint can initiate a Record-A-Call session without terminating call monitoring. Hunt group supervisors, however, cannot initiate a Record-A-Call while monitoring an endpoint, and an endpoint using Record-A-Call cannot be monitored. In other words, to use Record-A-Call and station monitoring simultaneously, the supervisor must first be monitoring the endpoint, and the endpoint, not the supervisor, must initiate the recording.

The Record-A-Call feature code can be assigned to a user-programmable feature button. If the feature button has a lamp, it flashes while the Record-A-Call conference is being set up and is lit while the feature is active.

The programmer can set a maximum length for Record-A-Call messages. The Record-A-Call Maximum Message Length timer can be set at 0-600 minutes. A 0 setting allows messages of any length, limited only by the available disk space. The default is 30 minutes. (This overrides the mailbox's maximum message length setting. However, if a Record-A-Call message exceeds the maximum message length, the mailbox will be considered full until that Record-A-Call message is deleted.)

As with any other conference call, any inside party involved in a Record-A-Call conference can use the Hold, Transfer, Agent Help, or other features. However, if any inside party has enhanced speakerphone enabled, the enhanced mode will be disabled when the conference begins and must be re-enabled if desired.

NOTE Record-A-Call is not supported on IP or SIP devices on P2P calls (see page 69).

To use Record-A-Call with an Inter-Tel endpoint:

1. Press the Special button and dial the Record-A-Call feature code (385) or press the **RECORD-A-CALL** menu button. The display shows REQUESTING RECORD-A-CALL.
2. ***If required or allowed,*** enter the desired mailbox number. The display shows ENTER MAILBOX NUMBER. (If you do not enter a mailbox number, and you have a default Record-A-Call mailbox, the system will automatically select your default mailbox. If you do not have a default mailbox, the feature will time out or can be canceled by pressing # or **ACCEPT**.)
3. You hear a confirmation tone when the Record-A-Call feature is activated. The display shows RECORD-A-CALL IN PROGRESS.
4. **To turn off Record-A-Call,** repeat step 1 or end the call. The display shows RECORD-A-CALL TERMINATED.

To use Record-A-Call with a single line endpoint:

1. During a call, hookflash and dial the Record-A-Call feature code (385).
2. ***If required or allowed,*** enter the desired mailbox number. The display shows ENTER MAILBOX NUMBER. (If you do not enter a mailbox number, and you have a default Record-A-Call mailbox, the system will automatically select your default mailbox. If you do not have a default mailbox, the feature will time out or can be canceled by pressing # or **ACCEPT**.)

3. You hear a confirmation tone when the Record-A-Call feature is activated. The display shows RECORD-A-CALL IN PROGRESS.
4. To turn off Record-A-Call, repeat step 1 or end the call. The display shows RECORD-A-CALL TERMINATED.

Agent Help

NOTE The Agent Help premium feature is required to use Agent Help.

The Agent Help feature allows a user to request help from a designated "Agent Help Extension" during a two- or three-party call. When the request-for-help call rings, the Agent Help Extension can choose to join the call or reject the request. The Agent Help Extension can be a supervisor or other endpoint, an extension list, or a hunt group.

In Database Programming, an endpoint has two entries that can affect how this feature operates.

- The Agent Help Extension field determines the endpoint that is called when the Agent Help feature code is entered at the endpoint. This field can be set to any valid extension number for an endpoint, extension list, or hunt group, or it can be set to "None."
- The User-Keyed Extension flag, if enabled, allows the user to select the endpoint that will receive the Agent Help request, even if a default Agent Help Extension is programmed as described in the item above.

Table 25. *Agent Help Extension and User-Keyed Extension Fields*

AGENT HELP EXTENSION	USER-KEYED EXTENSION	RESULT
Ext. number	Disabled	The Agent Help Extension is called when the feature code is entered.
Ext. number	Enabled	The user is prompted to enter the desired number after the feature code is entered. If a number is not entered before the dialing timer expires, the programmed Agent Help Extension number is dialed automatically.
None	Enabled	The user is prompted to enter the desired number after the feature code is entered.
None	Disabled	The user hears reorder tone if the feature code is entered.

When a user enters the Agent Help feature code, a private call is placed to the endpoint Agent Help Extension. While the call is ringing at the supervisor's extension, neither the requesting user nor any other parties on the call can hear the private call ringing. If the supervisor answers the call, the system creates a conference to include the supervisor in the requesting user's original call.

If the Agent Help Extension is an Inter-Tel endpoint, the microphone is muted, and the supervisor cannot be heard unless he or she presses the MUTE button. If the Agent Help Extension is a single line endpoint, the supervisor ***can*** be heard as soon as the conference is established. In either case, the supervisor can hear all other parties on the call.

NOTE Agent Help is not supported on IP or SIP devices in P2P calls (see page 69).

In a network setting, the Agent Help Extension does not need to reside on the same node as the user requesting Agent Help.

The type of endpoint determines how the Agent Help Extension is alerted:

- **Display endpoints—**If the Agent Help Extension is a display endpoint, the display shows that the incoming private call is an Agent Help request and identifies the user-name of the requesting station. The Agent Help Extension can choose to reject the call by not answering it or by entering the Agent Help Reject feature code (376). The call appears under the IC button (or a Call button if there is no IC button).
- **Non-Display endpoints and single line endpoints—**The Agent Help Request private call rings just as any private intercom call would; there is no way to distinguish it.

If the Agent Help Extension is an extension list or hunt group, the private call circulates as usual until it is answered. If an Agent Help request is not answered before the Forward No Answer timer expires, the request is considered rejected.

To signal to the other parties that the Agent Help Extension has joined the call, a system-wide Agent Help Tone flag can be enabled during database programming. If the flag is disabled, there will be no alerting tone. A timer, called the Agent Help Tone Interval timer, determines how often this tone is generated. If the timer is set to 0, the tone is generated only when the Agent Help Extension enters the call, a party is added to the call, or the call is placed on hold and retrieved.

If the Agent Help feature code is assigned to an Inter-Tel endpoint feature button with a lamp, the lamp status shows the following:

- The lamp flashes when the Agent Help Extension is being called.
- The lamp goes off if the Agent Help request is rejected or the feature is terminated.
- The lamp is lit solidly when the Agent Help Extension is in the conference.

When the requesting user hangs up, all parties are automatically disconnected. The Agent Help Extension can leave the call at any time, without affecting the other parties, by hanging up. If the other party (or parties) hangs up first, the requesting station and the Agent Help Extension remain connected in an intercom call. The requesting station can cancel the request (or remove the Agent Help Extension from the call) by re-entering the Agent Help feature code, thereby terminating the feature.

If necessary, the requesting endpoint in an Agent Help call can use the Hold, Transfer, Record-A-Call, or other features during the call, while the Agent Help Extension is connected. However, if any inside party has enhanced speakerphones enabled, the enhanced mode will be disabled when the Agent Help conference begins and must be re-enabled if still desired.

The Agent Help feature will not function in the following cases:

- If the feature is not enabled in Premium Features, any user attempting to enter the Agent Help feature code will hear reorder tones and, if at a display endpoint, see a RESERVED FEATURE display.
- The Agent Help Extension cannot be in Do-Not-Disturb mode or have call forwarding enabled. If so, the requesting user will hear reorder tones after entering the Agent Help feature code or entering the desired extension number. The Agent Help request will not follow the forward or any programmed system forwarding.
- If the user who enters the Agent Help feature code is on a four-party conference call, the system will send reorder tones to signal that the Agent Help Extension cannot be added. There can be a maximum of four parties in a conference; attempting to add the Agent Help Extension would exceed the maximum.
- If there are no conference circuits available when the user enters the Agent Help feature code, the user will hear reorder tones and must try again later when circuits are available.

If the call is being monitored by a hunt group supervisor, the monitoring feature is terminated when the Agent Help Extension joins the call; an Agent Help conference call cannot be monitored.

- **To use the Agent Help feature with an Inter-Tel endpoint:**

  While on a call, press the Special button and then enter the Agent Help feature code (375).

  a. ***If you hear reorder tone,*** the Agent Help feature is not available at your station, you already have four parties in your call, no conference circuit is currently available, or the Agent Help Extension is in Do-Not-Disturb.

  b. Depending on programming, you may be prompted to enter an extension number. If so, enter the extension number of the station you want to call for help. ***If you do not enter a valid extension number,*** you hear reorder tones and must start over. The display shows REQUESTING AGENT HELP.

  c. ***If the Agent Help Extension accepts the call,*** you will hear the Agent Help tone, if enabled. Display endpoints show AGENT HELP IN PROGRESS. When the Agent Help Extension hangs up, your display shows AGENT HELP TERMINATED.

  d. ***If the Agent Help Extension rejects the call,*** you will hear a confirmation tone. Display endpoints will show AGENT HELP REJECTED.

- **To use the Agent Help feature with a single line endpoint:**

  While on a call, hookflash and then enter the Agent Help feature code (375).

  a. ***If you hear reorder tone,*** the Agent Help feature is not available at your endpoint, you already have four parties in your call, no conference circuit is currently available, or the Agent Help Extension is in Do-Not-Disturb.

  b. Depending on programming, you may be prompted to enter an extension number. If so, enter the extension number of the endpoint you want to call for help. ***If you do not enter a valid extension number,*** you hear reorder tones and must start over. The display shows REQUESTING AGENT HELP.

  c. ***If the Agent Help Extension accepts the call,*** you will hear the Agent Help tone, if enabled. Display endpoints show AGENT HELP IN PROGRESS. When the Agent Help Extension hangs up, your display shows AGENT HELP TERMINATED.

  d. ***If the Agent Help Extension rejects the call,*** you will hear a confirmation tone. Display endpoints will show AGENT HELP REJECTED.

To respond to an Agent Help request at a display endpoint:

When you receive a private call from an Agent Help request, you will see a display that shows ***(name)*** REQUESTS HELP. You can do one of the following:

To accept the call: Answer as usual or press the **ANSWER** menu button. You hear the Agent Help Tone, if enabled. Your display shows AGENT HELP IN PROGRESS.

To reject the call: Enter the Agent Help Reject feature code (376) or press the **REJECT HELP** menu button. You hear confirmation tone.

To place your endpoint in Do-Not-Disturb to block the call: Enter the Do-Not-Disturb feature code (370) or press the **DND** button or the **IC CALL TO DND** menu button.

System Forwarding

System forwarding is a standard feature that provides the ability to program the system so that calls ringing at an endpoint will follow a database-programmed "forwarding path" that routes the call based on the type of call and the status of the intended endpoint. (The Call Forwarding endpoint feature can be used to override System Forwarding.) Several terms will be used to describe this feature, including:

- **Principal Station:** Original endpoint being called.
- **Forwarding Point:** A destination (endpoint, hunt group, or off-node device) to which the system-forwarded call is directed. Each forwarding path can contain up to four forwarding points.
- **Forwarding Path:** The sequence of forwarding points to which the call will be sent. Forwarding paths are programmed in the database. Up to 200 unique paths can be programmed. Each endpoint can have up to three forwarding paths.

Two system timers are used with this feature:

- **System Forwarding Initiate:** This timer determines how long a call will ring (unanswered) at the principal station before moving to the first forwarding point. The default value is 15 seconds, and the range is 2-255 seconds.
- **System Forwarding Advance:** This timer determines how long the call will ring (unanswered) before moving to the next forwarding point. The default value is 15 seconds, and the range is 2-255 seconds.

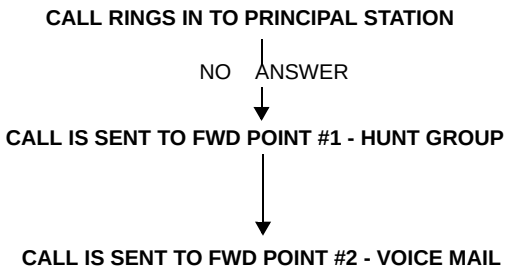
For each forwarding path assigned to the endpoint, the system checks the following three criteria to determine if and when a call should be forwarded:

- **Type of incoming call:** The following six different types of calls can be programmed to be sent to the forwarding path:
  - Outside calls received through a call routing table (including DID and E&M calls, but not including DISA calls)
  - Ringing outside calls
  - Transferred outside calls (including Automated Attendant and Voice Mail transfers)
  - Recalling outside calls
  - DISA calls (including DISA calls received through a call routing table)
  - Intercom calls
- **Endpoint status:** The system recognizes four different types of endpoint status.
  - ***No Answer:*** If the call is not answered at the principal station before the System Forwarding Initiate timer expires, the system sends the call to the forwarding path.
  - ***Busy***: If the principal station is busy, the system immediately sends the call to the forwarding path. Both "No Answer" and "Busy" can be selected together to form a "Not Available" status.
  - ***Do-Not-Disturb***: If the principal station is in Do-Not-Disturb, the system immediately sends the call to the forwarding path.
  - ***Immediate***: The system immediately sends the call to the forwarding path. The principal station user cannot answer an immediately forwarded call, but can reverse transfer it from the forwarding point.
- **Day-mode/night-mode status:** The system day/night mode is used to determine if a forwarding path is taken. Either day mode, night mode, or both may be specified.

For an example, refer to the diagram below. In the example, the principal station user wants direct ring-in or transferred calls to ring at his or her endpoint during day mode. The principal station has a forwarding path with two forwarding points: a hunt group and Voice Mail. If the

principal does not answer the call, it follows the forwarding path to forwarding point #1, a hunt group. If the hunt group does not answer the call, it would continue on the forwarding path and go to the principal station Voice Mailbox (forwarding point #2).

If the principal station is an Inter-Tel endpoint, the "ring principal once" option can be set that will signal the principal station when a call begins to follow the forwarding path. The signal to the principal station consists of a display (CALL SENT TO FORWARD PATH) and a single burst of ring tone. The call cannot be answered at the principal station, but can be reverse transferred from the system forward point.



If a call rings in to multiple endpoints, and one or more of those endpoints has system forwarding, the call will not follow any of the forwarding paths. Agent Help requests will not follow any forwarding path.

If a principal station or a endpoint forwarding point is a member of a hunt group, calls placed to the hunt group's pilot number are unaffected by system forwarding. The hunt group calls will be received at the endpoint as usual and will not enter the system forwarding path.

A call follows only the forwarding path of the principal, even if a forwarding point has a forwarding path of its own. The call that originated at the principal station will follow only the principal station's forwarding path.

Individual Endpoint Forwarding Points

The ringing duration at each endpoint forwarding point is determined by the System Forwarding Advance timer (defaults to 15 seconds). If the endpoint forwarding point is busy, the call will camp-on until the System Forwarding Advance timer expires and then it moves to the next forwarding point.

If the endpoint forwarding point is in Do-Not-Disturb, the forwarding path will bypass that endpoint and immediately send the call to the next forwarding point.

If a forwarding point is a voice processing system application, and the system is unable to communicate with the voice processing system, the call will bypass the forwarding point.

An endpoint forwarding point can place calls or transfer calls to the principal.

Hunt Group Forwarding Points

If a forwarding point is a hunt group, a call following the forwarding path will be sent to the announcement endpoint or overflow endpoint as usual; it will advance to the next forwarding point if not answered before the System Forwarding Advance timer expires.

The call will ring at the hunt group until the System Forwarding Advance timer expires. It will then move to the next forwarding point. The No Answer Advance timer determines how long the call will ring at each hunt group endpoint, as usual.

If all endpoints in a hunt group forwarding point have Do-Not-Disturb or hunt group remove enabled, the call will camp on until the System Forwarding Advance timer expires. The call will then be sent to the next forwarding point.

Handsfree Announce System Forward Option

When a call is transferred to the principal station by another endpoint user ***and the principal station's system forward is set for the "no answer" endpoint status***, a system-wide option determines what the caller hears, as shown in the table below.

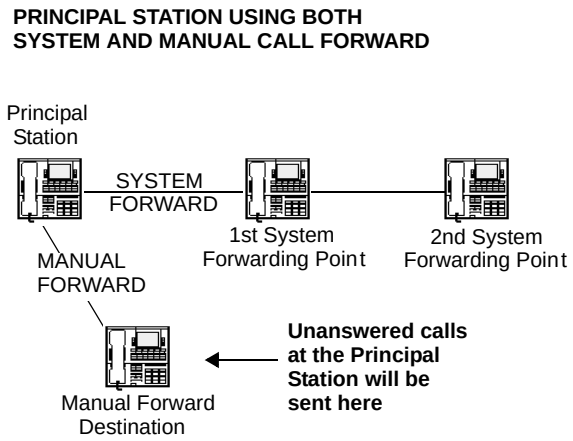
Table 26. *Handsfree Announce and System Forward Options*

HANDS-FREE ANNOUNCE OPTION	SYSTEM FORWARD OPTION	RESULT
Disabled	Intercom and/or outside calls forwarded	The intercom call from the transferring endpoint enters the forwarding path after the System Forwarding Initiate timer expires. The transferring user hears ringing and can announce the call only if it is answered.
Enabled	Outside calls forwarded	The transferring user will place a handsfree call to the principal station and can announce the transfer; the ***System Forwarding Initiate*** timer does not start until the transfer is completed.
Enabled	Intercom calls forwarded	The handsfree announce option is overridden and the intercom call from the transferring station enters the forwarding path after the System Forwarding Initiate timer expires. The transferring user hears ringing and can announce the call only if it is answered.
Enabled or Disabled	Calls forwarded to Voice Mail	The transfer is completed when the transferring endpoint hangs up. The principal station's mailbox number is automatically dialed.

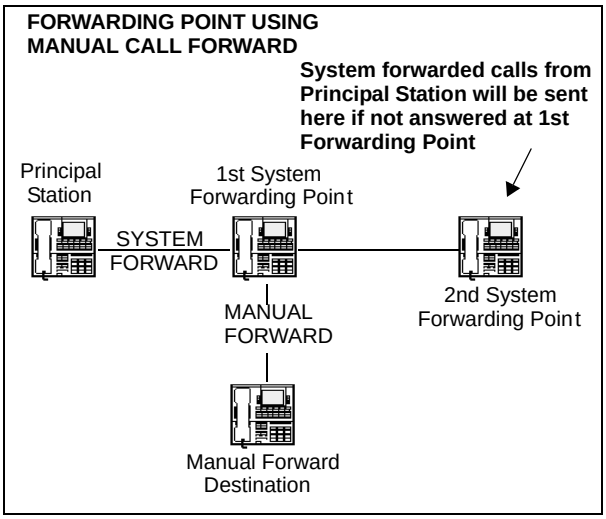
Manual Call Forwarding and System Forwarding

If the principal station or a forwarding point has manual call forward enabled (using the FWD button or one of the Call Forwarding feature codes), the Call Forward feature overrides System Forwarding.

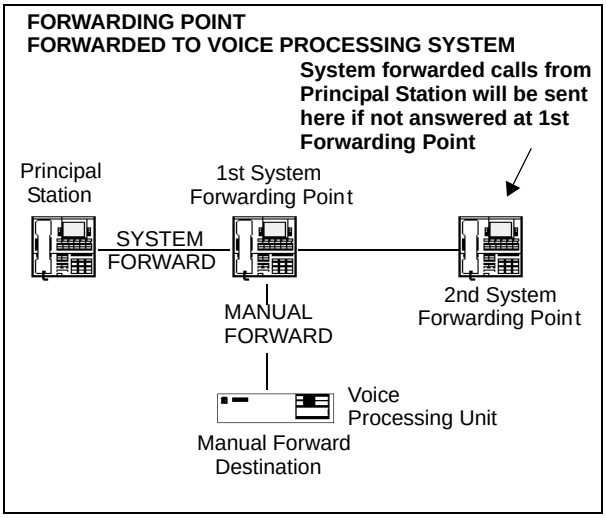
Figure 13. *System Forward and Manual Call Forward Example*


PRINCIPAL STATION USING BOTH
SYSTEM AND MANUAL CALL FORWARD
Principal Station
SYSTEM FORWARD
1st System Forwarding Point
2nd System Forwarding Point
MANUAL FORWARD
Unanswered calls at the Principal Station will be sent here
Manual Forward Destination

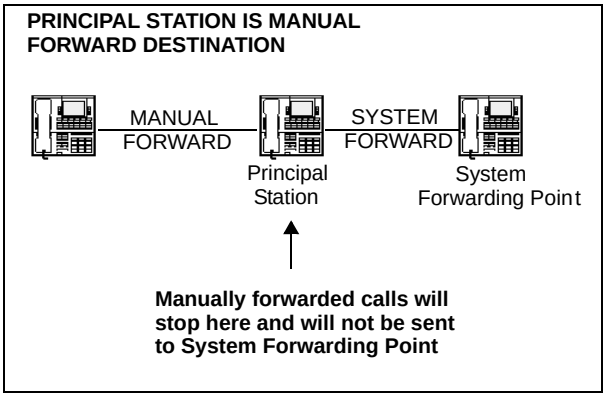
If a forwarding point has the Call Forward feature enabled, a system-forwarded call will ring at the forward destination until it is answered or the System Forward Advance timer expires; then the call moves on to the next forwarding point.


FORWARDING POINT USING
MANUAL CALL FORWARD
System forwarded calls from Principal Station will be sent here if not answered at 1st Forwarding Point
Principal Station
1st System Forwarding Point
SYSTEM FORWARD
2nd System Forwarding Point
MANUAL FORWARD
Manual Forward Destination

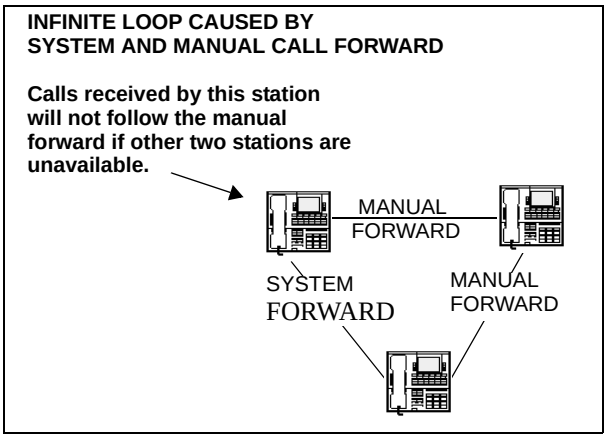
If a station forwarding point is manually forwarded to Voice Mail, the call will not follow the manual forward to the voice processing system; it will ring at the station forwarding point.


FORWARDING POINT
FORWARDED TO VOICE PROCESSING SYSTEM
System forwarded calls from Principal Station will be sent here if not answered at 1st Forwarding Point
Principal Station
1st System Forwarding Point
SYSTEM FORWARD
2nd System Forwarding Point
MANUAL FORWARD
Voice Processing Unit
Manual Forward Destination

If the principal station ***receives*** a manually forwarded call (not a system forward), that call will ***not*** follow the principal station's system forwarding path.


PRINCIPAL STATION IS MANUAL FORWARD DESTINATION
MANUAL FORWARD
SYSTEM FORWARD
Principal Station
System Forwarding Point
Manually forwarded calls will stop here and will not be sent to System Forwarding Point

If an infinite forward loop results from the combination of manual forwards and system forwarding paths, the endpoint that was originally intended to receive the call will ring, even if the endpoint is in Do-Not-Disturb.


INFINITE LOOP CAUSED BY
SYSTEM AND MANUAL CALL FORWARD
Calls received by this station will not follow the manual forward if other two stations are unavailable.
MANUAL FORWARD
SYSTEM FORWARD
MANUAL FORWARD

System Forward Enable/Disable

The user has the option of entering feature codes that will disable or enable the use of System Forwarding at that endpoint. Note that this flag does not affect the station's appearance on any other station's call forwarding path. The flag merely determines whether the station will have its own calls system forwarded.

To enable or disable system forwarding:

- **Inter-Tel endpoints:** Enter the System Forward On (352), System Forward Off (353), or System Forward On/Off (354) feature code. The display shows SYSTEM FORWARD ON (or OFF). If disabled, the system will ignore any system forwarding paths programmed for this endpoint until you re-enable system forwarding.
- **Single line endpoints:** Lift the handset and enter the System Forward On (352), System Forward Off (353), or System Forward On/Off (354) feature code. If disabled, the system will ignore any system forwarding paths programmed for this endpoint until you re-enable system forwarding.

Unanswered System Forward Calls

If a call that is following a system forwarding path is not answered or all forwarding points are in Do-Not-Disturb or busy, its final destination depends on the type of call as shown below.

Table 27. *Final Destinations for Types of Calls*

TYPE OF CALL	ALL FWD POINTS ARE BUSY OR DO NOT ANSWER	ALL FWD POINTS ARE IN DO-NOT-DISTURB
Intercom	Rings at the last forwarding point until it is answered or the caller hangs up.	Call never leaves the principal station.
Call routing ring-in (except DISA)	Rings at last forwarding point until it is answered or caller hangs up.	Rings at the principal station until it is answered or the caller hangs up.
Direct ring-in	Rings at last forwarding point until it is answered or caller hangs up.	Rings at the principal station until it is answered or the caller hangs up.

Table 27. *Final Destinations for Types of Calls(Continued)*

TYPE OF CALL	ALL FWD POINTS ARE BUSY OR DO NOT ANSWER	ALL FWD POINTS ARE IN DO-NOT-DISTURB
Transfer from a station, Automated Attendant, or Voice Mail	Recalls the transferring station's transfer recall destination when the System Forwarding Advance timer expires at the last forwarding point.	*If immediate forwarding is enabled,* rings the principal station until the applicable Transfer timer expires. Then it recalls the transferring station's transfer recall destination. *If a conditional forwarding is enabled,* rings principal station until the System Forward Initiate timer expires. Then it recalls the transferring station's transfer recall destination.
DISA (including Call Routing to DISA)	Rings at last forwarding point until the Abandoned Call timer expires.	Rings at the principal station until the Abandoned Call timer expires.
Recalls	Recalls the principal station's Attendant when the System Forwarding Advance timer expires at the last forwarding point. If the principal station does not have an Attendant, the call continues to ring at the last forwarding point until the Abandoned Call timer expires.	*If immediate forwarding is enabled,* rings principal station until the Recall timer expires. Then it recalls the principal station's Attendant. *If a conditional forwarding is enabled,* rings principal station until the System Forward Initiate timer expires. Then it recalls the principal station's Attendant. If the principal station does not have an Attendant, the call continues to ring at the principal station until the Abandoned Call timer expires.

Call Forwarding

With call forwarding, a user can route incoming intercom and outside calls (including direct ring-in calls) to another endpoint, to a hunt group, or to an outside phone number, if allowed by toll and trunk restrictions. In a network setting, the network allows the user to forward calls to endpoints or hunt groups on another node. (See also page 205.)

The four forwarding options are:

- **Forward all calls:** All incoming calls are immediately forwarded.
- **Forward if no answer:** Incoming calls are forwarded if they are not answered before the Forward No Answer timer expires.
- **Forward if busy:** Incoming calls are immediately forwarded if the endpoint is busy.
- **Forward if no answer or busy:** Incoming calls are forwarded immediately if the endpoint is busy or if calls are not answered before the Forward No Answer timer expires.

If forward all calls is enabled, display endpoints show the call forwarding status and destination until the request is canceled. If one of the conditional forwards is enabled (no answer, busy, or no answer/busy), display endpoints show the forward status for five seconds and then return to normal. If the station receiving the forward is equipped with a display endpoint, it shows EXT XXXX FWD FROM EXT XXXX for each forwarded call received.

Users can chain Forwards from station to station provided that the Forwards do not form a logical loop and the chain does not include more than 10 endpoints. The conditional Forward features (if busy, if no answer, if busy/no answer) may form a loop that the system cannot detect

until a call is placed to the forwarding station. For example, if two users forward their calls to each other using the Forward If Busy feature, the system accepts the requests. However, if a call rings in while both stations are busy, the forwards create an illegal loop. In this case, the call camps on to the called station endpoint and that endpoint's display shows INVALID FORWARD PATH.

If more than one station has ring in for a trunk group, direct ring-in calls on that trunk group will forward to extension numbers, but not outside numbers or Voice Mail ports. The display of the endpoint receiving the forwarded call will show it as a forwarded call, and the Call button or individual trunk button flashes to show ring in. (The individual trunk button also flashes on the endpoint that is being forwarded.)

Calls cannot be forwarded to restricted outside phone numbers or to station endpoints in Do-Not-Disturb. If the station that is programmed to receive your forwarded calls is later placed in Do-Not-Disturb and you receive a call, you will momentarily see a display showing that the destination station is in Do-Not-Disturb; the call will remain at your station.

NOTE Direct ring-in calls that are forwarded to a station in DND will ring the DND station in accordance with the rules of DND.

If your station is in Do-Not-Disturb and you have call forwarding programmed, the call is still forwarded, unless you enabled Forward No Answer. With Forward No Answer, intercom callers will see the programmed Do-Not-Disturb display, and the call will not be forwarded.

If calls are forwarded to a voice processing system application, and the system is unable to communicate with the voice processing system PC, the call will not be forwarded. It will remain at your station.

Call forwarding overrides system call forwarding at the principal station.

If a station is programmed for Forward No Answer or Forward No Answer/Busy and receives a transferred call, the Forward No Answer timer is started when the intercom call from the transferring station begins ringing. The Forward No Answer timer is restarted if the transferring station completes the transfer before the timer expires (the transferred call will then be forwarded when the timer expires).

Agent Help Request calls, queue callbacks, and recalls do not forward, except that a recall at an Attendant's station will forward to another station.

FWD Button

Some Inter-Tel endpoints use a combination of the default FWD key and forwarding menu keys. When the default FWD key is pressed, the display shows a menu of call forwarding options. The user must then select the desired option by pressing the corresponding key next to the display. If the FWD key is programmed to use any other Forward feature code (355-358) the forwarding options will not be displayed when the FWD key is pressed; the Inter-Tel endpoint will operate the same as any other Inter-Tel endpoint.

Any Inter-Tel endpoint user can make any user-programmable button a FWD button that uses one of the forwarding feature codes (355-358). Refer to the procedures on page 137 for programming user-programmable buttons.

A user-programmed FWD button is lit only when the station is programmed for the call forwarding condition enabled by that button. For example, if a user-programmed FWD button is set to forward calls when the station is busy, the button will be lit when the Forward If Busy feature is enabled, but not if the Forward If No Answer feature is enabled.

If an Inter-Tel endpoint user has both a fixed FWD button and a user-programmable FWD button, the fixed button will always light when the station is forwarded. However, the user-programmable FWD button will be lit only when the forwarding option activated by that button has been selected. For example, if the user has the Forward All Calls feature programmed

under a user-programmable button, that button will light if either the fixed or programmable FWD button is used to select that feature. However, if the fixed button or a feature code is used to set the Forward If Busy feature, only the fixed button will light.

Forward to an Outside Number

When programming a station for call forward to an outside phone number, a trunk access code is programmed before the phone number. If the station is called while the selected trunk group is busy, the call will not be forwarded. Calls will ring at the forwarded station until the call is answered or the caller hangs up. The forwarded station's display shows FORWARD TO BUSY TRUNK.

The forwarded station's (not the intercom caller's) trunk and toll restrictions are checked when an intercom call is forwarded to an outside number.

When an outside call is forwarded to an outside number, the Unsupervised CO timer is activated. When the timer expires, the call recalls the Attendant. If the Attendant does not answer the recall before the Abandoned Call timer expires, the call is disconnected.

Stations with Forced Local Toll Call and Forced Long-Distance Toll Call account codes cannot forward calls to outside numbers.

If a trunk group is assigned direct ring in to multiple stations, and one of those stations is forwarded to an outside number, incoming calls on that trunk group are not forwarded to the outside number.

NOTE There may be some reduction in voice volume when an outside call is forwarded to an outside phone number, depending on central office trunk quality.

Manual Forwarding to Public Network

There is a station flag called Manual Forwarding to Public Network. When the Manual Forwarding to Public Network station flag is disabled, it prevents the station from manually forwarding calls to the public network. This prevents users from calling in to a local station and reaching toll numbers via forwarding.

Forward to the Message Center

Station users can forward calls to their message centers. Inter-Tel endpoint users can forward calls to their designated message center by pressing the FWD button and then the MSG button or **MESSAGE CENTER** menu button. Single line users must use the call forwarding procedure and dial the extension number of the message center.

Forward to an Attendant

Station users can forward calls to their Attendant by pressing the FWD button and then 0, or by entering a Call Forwarding feature code and dialing 0.

Forward to Voice Mail

If a station is forwarded to Voice Mail or if the message center is a Voice Mail hunt group, the user's mailbox number is automatically dialed when the Voice Mail unit answers the forwarded call.

If a chain of forwarded stations ends in Voice Mail, the mailbox number of the first station in the chain will be selected when the Voice Mail unit answers the call.

If a trunk group is assigned direct ring in to multiple stations, and one of those stations is forwarded to a Voice Mail unit, incoming calls on that trunk group are not forwarded to the Voice Mail unit.

How to Forward Calls to an Extension or Outside Number

Station users can also forward calls using the Remote Programming feature described on page 204.

To forward calls:

1. **Inter-Tel endpoints:** While on- or off-hook, press the FWD button or enter one of the following feature codes. (Display endpoints show ENTER FORWARD DEST.)
   - Call Forward All Calls (355)
   - Call Forward If No Answer (356)
   - Call Forward If Busy (357)
   - Call Forward If No Answer Or Busy (358)

   Single line endpoints: Lift the handset and enter one of the feature codes listed above.

2. ***If forwarding to an extension number or pilot number,*** do one of the following:
   - Dial the extension number or pilot number to receive the calls.
   - Dial 0 to forward to your Attendant.
   - ***(Inter-Tel endpoint users only)*** Press the MSG button or **MESSAGE CENTER** menu button to forward calls to your message center.

   NOTE If you dialed an invalid extension number, your display shows FORWARD TO INVALID NUMBER, you hear reorder tones, and must try again. If you dialed a station that is in Do-Not-Disturb, the display shows DESTINATION IN DND, you hear reorder tones, and you must enter a new destination.

   If forwarding to an outside phone number, do one of the following:
   - Dial a trunk access code (8 or 92001-92208). The display shows ENTER PHONE #. Dial the desired phone number.
   - ***(Inter-Tel endpoint users only)*** Press a trunk access button (OUTGOING, ARS, trunk group button, or trunk button). The display shows ENTER PHONE #. Dial the desired phone number.

   NOTE If the forward destination is invalid because of toll restriction, ARS-Only restriction, no outgoing access for the trunk, no ARS or ARS route group for the dialed number, or an invalid dialed number, you hear reorder tones and must enter a new destination. (The display explains why the call was denied.)

3. **Inter-Tel endpoints:** ***If off-hook,*** hang up. You hear a progress tone, and the FWD button is lit. The display shows FWD *(condition)* TO XXXX. If you attempted to forward calls to a station that is unconditionally forwarded to your station or if the forwarding path already has 10 stations, your display shows INVALID FORWARD PATH, you hear reorder tones, and you must enter a new destination.

   Single line endpoints: Hang up.

To cancel any call forward request:

- **Inter-Tel endpoints:** Press the lit FWD button (the Speaker button lights) then press the Speaker button (both buttons go off). You hear a progress tone. Display endpoints show ANY CALL FORWARD CANCELED.
- **Single line endpoints:** Lift the handset, enter any Call Forwarding feature code (355-358), and hang up.

Speed Dial

Three system features provide Speed Dialing. They are as follows:

- **System Speed Dial:** Up to 1000, 48-digit System Speed Dial numbers can be stored in the system.
- **Station Speed Dial:** Each station user can program up to 10, 16-digit Station Speed Dial numbers. Display endpoint users can program a 16-character name for each Station Station Speed Dial number.
- **System Directory (Intercom and Outside):** The intercom directory enables display endpoint users to "look up" intercom extension numbers and usernames. The outside directory enables display endpoint users to "look up" System Speed Dial numbers and associated names.

System Speed Dial

Speed dialing allows station users to dial stored phone numbers quickly. Up to 1000, 48-digit System Speed Dial numbers, with identifying names can be stored in system memory. (See the System Directory feature on page 193 and Caller ID on page 121.)

Each node in a network has its own System Speed Dial numbers. System speed dial numbers can be used only on the node where they are programmed.

To keep System Speed Dial numbers confidential, some or all can be programmed as non-display numbers. Non-display numbers can be used by any station user, but are displayed only on the programming station's endpoint. (Non-display numbers cannot be redialed or saved as Station Speed Dial numbers at a display endpoint.) Non-display numbers ***will*** appear in the SMDR report.

System Station Speed Dial names can be programmed by an administrator using English/Spanish or Japanese characters, or a combination. The programmed language for the endpoint does not affect the characters that can be viewed. That is, no matter what language the endpoint uses or which characters are in the name, the endpoint user will be able to see the Station Speed Dial names exactly the way they were programmed. In lists, such as Station Speed Dial directories, the English/Spanish characters are alphabetized before the Japanese characters (Japanese names will be at the end of the list).

System Speed Dial numbers are subject to toll restriction unless a system-wide option has been enabled that allows any station to dial any System Speed Dial number regardless of toll restriction.

The System Speed Dial numbers are stored using location codes (000–999). When dialed, the numbers appear on a display endpoint unless they have been programmed as non-display numbers. Display endpoint users can also view System Speed Dial numbers and names without dialing; however, with non-display numbers, only the name is displayed.

System Speed Dial codes 000–999 can be stored in user-programmable endpoint buttons by following the directions given on page 137. These buttons allow one-button dialing of System Speed Dial numbers.

The System Speed Dial numbers and names are stored in battery-backed RAM and will not be erased in the event of a power failure.

The System Speed Dial numbers and names are programmed by the installer or at any administrator station. (Refer to page 33 for administrator programming instructions.)

Viewing System Speed Dial Numbers

To view System Speed Dial numbers and names:.

NOTE If you make a mistake, use the MUTE button to backspace.

1. While on-hook, press SYS SPDL or enter the System Speed Dial feature code (381). The display shows REVIEW SYS SPEED # (000-999).
2. Enter the desired location code (000-999) or press the **SEARCH** menu button. The display shows the programmed name and number.
3. ***If desired,*** scroll forward through the Speed Dial locations in alphabetical order by pressing the high end of the Volume button or the **NEXT** button, or scroll backward by pressing the low end of the Volume button or the **PREVIOUS** button.
4. Repeat steps 2 and 3 for each Speed Dial location to be viewed. Or, press * or **CANCEL** to terminate this feature.
5. **To automatically select a trunk and dial the displayed number,** press #.

Dialing System Speed Dial Numbers

To dial System Speed Dial numbers at an Inter-Tel endpoint:

1. ***If desired,*** lift the handset and select an outgoing trunk. (You may skip this step.)
2. Press SYS SPDL or enter the System Speed Dial feature code (381). The display shows REVIEW SYS SPEED # (000-999). Non-display endpoint users hear a confirmation tone.
3. Enter the location code (000-999) for the desired number. ***If you have not selected a trunk,*** press # or the **ACCEPT** menu button to accept the number and automatically select a trunk. Or, press the ARS button, a trunk button, a trunk group button, or the OUTGOING button to select a trunk. The number is automatically dialed. (Display endpoints show the number dialed unless it is a non-display number.) If you hear reorder tones, your station is restricted from dialing the selected number. If the display shows INVALID BIN NUMBER, you entered an invalid Speed Dial location code.

To dial System Speed Dial numbers at a single line endpoint:

1. Lift the handset and select an outgoing trunk.
2. Hookflash and enter the System Speed Dial feature code (381). You hear a confirmation tone.
3. Enter the location code (000-999) for the desired number. The number is automatically dialed. If you hear reorder tones, your station is restricted from dialing the selected number.

Station Speed Dial

For convenience, each endpoint user can program up to 10, 16-digit Station Speed Dial numbers. Single line endpoints use Speed Dial location codes (0–9). Inter-Tel endpoints use Speed Dial buttons, if programmed in the Inter-Tel endpoint keymap, or location codes 0–9. Together, the lamps in the Inter-Tel Station Speed Dial buttons create a busy lamp field that indicates the status of the endpoints programmed under the buttons (refer to the lamp status chart on page 76). Speed-dial buttons can contain outside phone numbers, feature codes, station extension numbers, or hunt group pilot numbers.

Station Speed Dial codes can be stored in user-programmable buttons to create Speed Dial buttons.

Programming Station Speed Dial Numbers and Names

When entering the outside phone numbers, use one of the following methods:

- Use the dialpad to manually dial the number.
- On an Inter-Tel endpoint, press the REDIAL button to enter the last number (up to the first 16 digits) dialed or saved at the station.
- On an Inter-Tel endpoint, press the SYS SPDL button and enter the System Speed Dial location code (000-999) to store one of the System Speed Dial numbers in a Station Speed Dial location. (If the number is over 16 digits, only the first 16 digits are stored.) Non-display System Speed Dial numbers cannot be stored in Station Speed Dial locations.

If desired, outside phone numbers can be preceded with a trunk access code to allow one-button dialing of outside phone numbers. For example, a button programmed with "89619000" would select a trunk using the Outgoing Calls feature code (8) then dial 961-9000.

A station extension number can be preceded with a pound (#) to always speed dial private intercom calls to the station. Or, a "4" may be entered before a station extension number or hunt group pilot number to reverse transfer (pick up) calls from that station or hunt group. If either of these options is used, normal handsfree intercom calls cannot be placed using that Station Speed Dial location or Speed Dial button and the Speed Dial button will not show the station's status.

An outside phone number can be preceded by a trunk access code for easier trunk selection and number dialing. Station users can also program pauses and/or hookflashes into the stored outside phone numbers. For example, the number can contain a specialized common carrier (SCC) local number, a pause, and an access code. When programming Speed Dial numbers, each hookflash and each pause is considered one digit. The durations of the hookflash and the pause are determined by the programmable CO Hookflash and Pause Dialing Digit Length timers.

Display endpoint users can program an associated name for each Station Speed Dial number. Speed-dial names can contain up to 16 characters. To program Speed Dial names, dialpad buttons are used to enter the desired letters, numbers, and punctuation in English and or Spanish. When programming Speed Dial names, you can press the MSG button or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (#) button is used for entering a hyphen (-), and the asterisk (*) button is used for entering a colon (:). For example, 1 * 00 would enter "1:00" in numeric mode.
- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter "JEAN." When adjoining characters are located under the same button, press the FWD button to advance to the next character. For example, 66 FWD 6667776 would enter "NORM." Refer to the chart on the next page to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.)

To program Station Speed Dial numbers at a display endpoint:.

NOTE If you make a mistake, press * or **CANCEL**; then start over. The number in memory remains unchanged. Or, use the MUTE button to backspace.

1. While on-hook, enter the Program Station Speed Dial feature code (383). The display shows PROGRAM STN SPD (0-9) OR SCROLL. Do one of the following:
   - **Use a Speed Dial button:** Press the Speed Dial button to be programmed.
   - **Use a location code:** Dial the desired Speed Dial location code (0-9).

- **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button.

2. When the display shows ENTER NAME do one of the following:
   - **To change or program the name:** Enter the desired name for the Speed Dial number using your dialpad as described on page 188. Refer to the chart on the following page. Then press # or **ACCEPT**. ***If you make a mistake,*** use the **MUTE** button to back up and erase existing characters or the **CLEAR** button to erase the whole entry.
   - **To erase the current name and leave it blank:** Press **CLEAR** or press **MUTE** repeatedly until the name is erased. Then press # or **ACCEPT**.
   - **To leave the name the same:** Press # or **ACCEPT**.
3. When the display shows ENTER NUMBER do one of the following:
   - **To enter or change a number:** Dial the extension number or phone number (up to 16 digits, including pauses and hookflashes) to be stored. ***To include *, #, a hookflash, or a pause in the number,*** press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. You can enter more than one *, #, or hookflash in a row by pressing the **FWD** button to move to the next character (not necessary after pauses). ***If you make a mistake,*** press **MUTE** to back up and erase, or press * or **CANCEL** to leave the number unchanged; then start over at step 1.
   - **To erase an existing number and leave it blank:** Press **MUTE** until the number is erased.
4. Press # to exit. Repeat these steps for each additional number to be stored.

Table 28. *Programming Station Speed Dial Numbers Using the Dialpad*

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS****					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	’	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

To program Station Speed Dial numbers at a non-display endpoint:.

NOTE If you make a mistake, press ✳ or **CANCEL**; then start over. The number in memory remains unchanged. Or, use the MUTE button to backspace.

1. While on-hook, enter the Program Station Speed Dial feature code (383).
2. Press the Speed Dial button to be programmed or dial the Speed Dial location code (0–9). If you hear reorder tones, you entered an invalid speed dial location code; try again.
3. Do one of the following:
   - **To enter or change a number:** Dial the extension number or phone number (up to 16 digits, including pauses and hookflashes) to be stored. ***To include *, #, a hookflash, or a pause in the number,*** press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. You can enter more than one *, #, or hookflash in a row by pressing the FWD button to move to the next character (not necessary after pauses). ***If you make a mistake,*** press MUTE to back up and erase, or press ✳ or **CANCEL** to leave the number unchanged; then start over at step 1.
   - **To erase an existing number and leave it blank:** press MUTE until the number is erased.
4. Press # to exit. Repeat these steps for each additional number to be stored.

To program Station Speed Dial numbers at a single line endpoint:.

NOTE If you make a mistake, press ✳; then start over. The number in memory remains unchanged.

1. Lift the handset and enter the Program Station Speed Dial feature code (383). You hear a confirmation tone.
2. Dial the Speed Dial location code (0–9). If you hear reorder tones, you entered an invalid speed dial location code; try again.
3. Do one of the following:
   - **To enter or change a number:** Dial the extension number or phone number (up to 16 digits, including pauses and hookflashes) to be stored. ***To include *, #, a hookflash, or a pause in the number,*** hookflash once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. ***If you make a mistake,*** press ✳ to leave the number unchanged; then start over at step 1.
   - **To erase an existing number and leave it blank:** Overwrite the existing number by entering only a hookflash as the new number.
4. Hang up to exit. Repeat these steps for each additional number to be stored.

Viewing Station Speed Dial Numbers

To view the contents of a Speed Dial button (on a display endpoint):

1. While on-hook, enter the Review Keys feature code (396). The display shows PRESS THE KEY TO REVIEW. Press the desired Speed Dial button. The display shows the currently stored number and name.
2. After viewing the number, press the Speaker button, ✳, or # to exit, or wait for the display to return to date and time.

To view the stored numbers and names (on a display endpoint):

1. While on-hook, enter the Program Station Speed Dial feature code (383). The display shows PROGRAM STN SPD # (0-9) OR SCROLL. Do one of the following:
   - **Use a location code:** Dial the desired Speed Dial location code (0-9). When the name is displayed, press # or **ACCEPT** to view the number.
   - **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button. The name and number are displayed for each location.
2. After viewing the number, press the Speaker button, *, or # to exit, or wait for the display to return to date and time.

Dialing Station Speed Dial Numbers

To dial a Station Speed Dial number at a single line endpoint:

1. Lift the handset. (Inter-Tel endpoints can remain on-hook.)
2. ***If placing an outside call,*** select an outgoing trunk or use ARS. ***If placing an intercom call or if the outside number contains a trunk access code,*** skip this step.
3. Hookflash and enter the Station Speed Dial feature code (382). You hear a confirmation tone. Then dial the location code (0-9). The number is dialed.

To dial a Station Speed Dial number at a non-display endpoint:

1. Lift the handset or remain on-hook.
2. ***If placing an outside call,*** select an outgoing trunk or use ARS. ***If placing an intercom call or if the outside number contains a trunk access code,*** skip this step.
3. **Inter-Tel endpoint with a Speed Dial button:** Press the Speed Dial button of the desired number. The number is dialed.

   Inter-Tel endpoint without a Speed Dial button: Enter the Station Speed Dial feature code (382). You hear a confirmation tone. Then enter the location code (0-9). The number is dialed.

To dial a Station Speed Dial number at a display endpoint:

1. Lift the handset or remain on-hook.
2. ***If placing an outside call,*** select an outgoing trunk or use ARS. ***If placing an intercom call or if the outside number contains a trunk access code,*** skip this step.
3. **Inter-Tel endpoint with a Speed Dial button:** Press the Speed Dial button of the desired number. The number is dialed. Display endpoints show the number.

   Inter-Tel endpoint without a Speed Dial button: Enter the Station Speed Dial feature code (382). Then do one of the following to dial the number:
   - **Use a location code:** Dial the desired Speed Dial location code (0-9).
   - **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button.

Intercom, Speed Dial, and Feature Code Directory

NOTE The Directories feature does not support single line endpoints.

The Directory feature enables display endpoint users to "look up" intercom extension numbers and usernames, System Speed Dial numbers and names, or system feature codes. Once the desired information has been displayed, the user may automatically dial the number, store the number in a Station Speed Dial location, select a different number/name, terminate the directory routine, or switch to the other directory. A directory search can be performed when a call is waiting on conference or transfer hold at the station.

In a network setting, a user can see intercom directory names and extension numbers for all devices that are programmed as "off-node devices" on the local node. Devices that are represented by wildcard off-node extensions will ***not*** show up in the intercom directory.

To use the directory, the user enters a letter, a string of letters, a valid extension number, or a valid feature code. If searching for a name, the full name need not be entered. The system will find the closest match and show the number and its associated name on the endpoint display. Or, the user can scroll alphabetically through the stored list of names. (It is not possible to scroll through the extension numbers or feature codes numerically; extensions and features scroll alphabetically.)

Directory names can include English/Spanish or Japanese characters, or a combination. In the directories, English/Spanish characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list.

NOTE When using Japanese as the Primary or Secondary language, you can only search for last names in IC and CO directories. You cannot search based on the first name.

Keypad buttons are used to enter the desired English and or Spanish letters, numbers, and punctuation. Refer to the chart on the next page. The station user can switch between numeric and alphanumeric modes. (Numeric mode = MSG button unlit; alphanumeric mode = MSG button lit.) In alphanumeric mode, the number of times a button is pressed determines which character is entered. For example, 77776444844 would enter "SMITH." When adjoining characters are located under the same button, press the FWD button once to advance to the next character. For example, 5666 FWD 66337777 would enter "JONES." The letters correspond to the letters printed on the dialpad buttons.

The intercom directory is automatically updated whenever usernames and/or extension number information is reprogrammed. The outside directory is updated whenever a System Speed Dial number or name is reprogrammed.

Only administrator stations can view administrator feature codes using the directory. If the Diagnostics Mode feature is enabled, the diagnostic feature codes can also be viewed.

Use the following table as a guide for your entries using the keypad buttons.

Table 29. *Using the Dialpad to Locate Extension Numbers in the System Directory*

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS****					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	’	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

To perform a directory search:

1. While on- or off-hook, enter the Directory feature code (307). The MSG button lights (and the Speaker button lights if on-hook) and the display shows DIR TYPE: (IC=1 OUT=2 FEAT=3).
2. Press one of the following:
   - **For Intercom Directory:** Press 1 or the **IC DIRECTORY** menu button to select the intercom directory. The display shows INTERCOM NAME.
   - **For Outside Directory:** Press 2 or the **OUTSIDE DIR** menu button to select the outside number directory. The display shows OUTSIDE NAME.
   - **For Feature Directory:** Press 3 or the **FEATURE DIR** menu button to select the feature code directory. The display shows FEATURE NAME.
3. Enter alpha and/or numeric characters for the number, code, or user/feature name (up to 10 characters for intercom directory, 16 for outside or feature directory). If searching for a name, the whole name does not have to be entered. You may switch between modes by pressing the MSG button or the **USE NUMERIC MODE/USE ALPHA MODE** menu button. If necessary, press * to cancel the search.
   a. ***In numeric mode (MSG button unlit):*** Press the dialpad buttons to enter a valid feature, extension, or Speed Dial location number. Press MUTE to backspace, if necessary. Press the **SEARCH** menu button, or press MSG to change to alphanumeric mode and then press # to begin the search.
   b. ***In alphanumeric mode (MSG button lit):*** Press the dialpad buttons to enter the desired characters. Refer to the chart above. Press FWD once to advance or twice to leave a space. Press MUTE to backspace. Press # or the **SEARCH** menu button to begin the search. The closest match will be displayed.

4. ***If desired,*** press the high end of the Volume button or the **NEXT** button to scroll forward alphabetically through the directory or press the low end of the Volume button or the **PREVIOUS** button to scroll backward.
5. Do one of the following:
   - **To store the selected number in a Station Speed Dial location:** Press the desired Speed Dial button. You hear confirmation tone when the number is accepted.
   - **To automatically dial a displayed extension number:** Press #, the IC button, or the **ACCEPT** button. (If an intercom call is camped on and the IC button is lit, pressing the IC button answers the waiting call and terminates the Directory feature.)
   - **To dial a displayed outside number:** Press #, the **CALL** menu button, or a Call button. The system automatically dials the number using your programmed outgoing access code.
   - **To dial a displayed feature code:** Press # or the **ACCEPT** button. The system automatically dials the feature code.
   - **To search for another name or number:** Repeat the procedure starting at step 3.

House Phone

This feature provides users with the ability to place a pre-designated intercom or outside call simply by lifting the handset (or pressing the Speaker button, if using an Inter-Tel endpoint) on a designated House Phone. In a network, the house phone can be programmed to dial an off-node device. There are several applications for this feature, such as:

- **Courtesy paging endpoint:** Visitors hear pages instructing them to pick up the house phone (such as the paging endpoints used in airport terminals). When they lift the handset, they are connected to a pre-programmed station user who can give them a message or connect them to a call.
- **Emergency endpoint:** The House Phone can be programmed to automatically dial the Emergency Call feature code (default is 911, 999 in Europe). This could save time in an emergency.
- **Service endpoint:** Customers can use the House Phone(s) to place orders or receive special services from the lobby. For example, the House Phone would automatically dial the extension number of a service representative (or hunt group number of the service department).
- **Intercom network:** House Phones could be placed in specific locations throughout a building (such as examination rooms in a doctor's office) and could be programmed to call a specific endpoint or group of endpoints (such as nurses' stations).

Any endpoint may be designated as a House Phone in Database Programming. However, this feature is usually assigned to single line endpoints. The primary Attendant should not be designated as a House Phone.

The number dialed by the House Phone is determined by the station's Speed Dial programming. The number programmed through the database or in Station Speed Dial location 0 is automatically dialed during day mode, and the number in location 1 is dialed during night mode. This number can be either an extension number or an outside phone number. If it is an outside number, it must be preceded with a trunk access code (and a pause if necessary).

Once the House Phone status has been programmed, the Speed Dial number can only be changed while on-hook (if it is an Inter-Tel endpoint) or through individual endpoint information (special purpose endpoint) programming because lifting the handset will cause the endpoint to dial the designated number.

Incoming calls take precedence over outgoing calls. If using a single line endpoint or an Inter-Tel endpoint that is programmed for automatic trunk access (see page 139), any ringing call is automatically answered when the handset is lifted or the Speaker button is pressed.

The "House Phone Mode" flag determines whether a single line House Phone returns dial tone or does not return dial tone after the called party disconnects. At the System level of programming, all House Phones may be set in either Normal mode or Restricted mode. At the individual Endpoint level of programming, a House Phone must be programmed to dial specific digits as soon as the handset is taken off-hook. The programmed digits may ring a specific endpoint or a Hunt Group that rings multiple endpoints.

Normal mode allows the user to enter a feature code or place a call after the automatically called number hangs up. Restricted mode prevents the user from performing any operation other than placing a House Phone call. The System default state is Normal.

The interaction of the House Phone Mode flag with the programmed Speed Dial number and system feature is shown below.

Table 30. *House Phone Mode Interactions*

SITUATION	DAY/NIGHT #	NORMAL MODE	RESTRICTED MODE
House phone user lifts the handset	Complete extension	Dials the extension number	Dials the extension number
House phone user lifts the handset	Blank	User receives intercom dial tone	User receives reorder tone
House phone user lifts the handset	Incomplete extension number	System dials the partial number and waits for further digits	System dials partial number, then times out after Long Interdigit timer expires, and sends reorder tones
House phone is connected to ARS, and the user performs a hookflash	Dials an outside number using ARS	System inserts a hookflash in the number and registers end-of-dialing	System restarts ARS by clearing the number and returns outside dial tone to the user
House phone is connected to an outside call, and the user performs a hookflash	N/A	The call is placed on consultation hold, and the user hears intercom dial tone	The trunk dials a hookflash, and toll restriction is restarted
Party the house phone is connected to hangs up before the house phone user	N/A	User receives intercom dial tone and can use another feature code or dial a number	System redials the house phone digits after the SL Wait for Disconnect timer expires

Redialing

The Redial feature can store one phone number in redial memory at the station. If the station user reaches a busy number, is disconnected, or if there is no answer, the number can be redialed easily. The station user simply lifts the handset and presses the REDIAL button or enters the Redial feature code. A trunk access code is automatically entered, and the phone number is redialed. (If redialing while still connected to an outside call, the connection is dropped, and the trunk is reseized before the number is dialed.)

Only one phone number can be stored in the station's redial memory at a time. This number can be stored in one of two ways, depending on station programming:

- **Last number saved:** The desired number is manually stored in redial memory by the station user. Dialing other numbers does not change the stored number. It only changes when a new number is stored.
- **Last number dialed:** The last number manually dialed or speed dialed is automatically stored. It changes every time the user dials a phone number. (This is the default value of the Redial feature.)

The Last Number Saved and Last Number Dialed features work differently depending on the station status when it is used, as shown in the table below. Individual station programming determines the mode of the Redial feature (Last Number Dialed or Last Number Saved). The Redial feature code (380) performs the redial function (programmed under the REDIAL button). Non-display System Speed Dial numbers cannot be redialed at a display endpoint.

Table 31. *Redial Interactions*

STATION STATUS WHEN REDIAL FEATURE IS USED	STATION HAS "LAST NUMBER SAVED"	STATION HAS "LAST NUMBER DIALED"
Idle station	Saves the last trunk access code and phone number that was dialed.	A trunk is selected using the same trunk access code as used to place last outside call, and the last phone number is dialed.
Intercom dial tone (on- or off-hook)	Saves the last trunk access code and phone number that was dialed.	A trunk is selected using the same trunk access code as used to place last outside call, and the last phone number is dialed.
On an intercom call	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved phone number.	Releases the current call, seizes a trunk using the access code used on the last outside call, and dials the last phone number dialed.
After selecting a trunk but ***before*** dialing	Redials the saved phone number on the currently selected trunk. (Note that the current trunk is used instead of the saved trunk access.)	Redials the last phone number dialed, using the currently selected trunk.
After selecting a trunk ***and dialing*** one or more digits	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved phone number.	Releases the current call, reseizes the trunk (using the access code used on that call), and redials the digits that were dialed.
On an incoming outside call	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved phone number.	Releases the current trunk, seizes a trunk using the same trunk access code used on the last outgoing call and dials the last number dialed.

Using the Last Number Saved Feature

Use the following procedures to save and redial numbers at stations that are programmed to use the Last Number ***Saved*** feature.

To save a number on a station programmed for last number saved:

> **NOTE** The saved number is replaced each time you repeat this procedure.

Inter-Tel endpoints: While the endpoint is idle or while listening to intercom dial tone, press the REDIAL button, or press the Special button and enter the Redial feature code (380). You hear a confirmation tone, and the display shows LAST OUTSIDE NUMBER SAVED.

Single line endpoints: Lift the handset and enter the Redial feature code (380). When you hear the confirmation tone, hang up.

To redial a number (last number saved):

Inter-Tel endpoints: While on a call or after selecting a trunk, press the REDIAL button, or press the Special button and enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected. The saved phone number is dialed.

Single line endpoints: While on a call or after selecting a trunk, hookflash and then enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected. The saved phone number is dialed.

Using the Last Number Dialed Feature

Use the following procedure to redial numbers at stations that are programmed to use the Last Number ***Dialed*** feature.

To redial a number (last number dialed):

Inter-Tel endpoints: While on- or off-hook, press the REDIAL button, or press the Special button and enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected and which digits are dialed.

Single line endpoints: Lift the handset or hookflash. Then enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected and which digits are dialed.

Redirect Call

The Redirect Call feature code is located under System/Devices and Feature Codes/Feature Codes. The Redirect Call Feature (feature code 331) allows Inter-Tel endpoint users to route ringing outside, intercom, and camped on calls to another station, hunt group, or outside number. Routing of the redirected call is still subject to trunk and toll restrictions. This feature provides these options in addition to the currently available options which allow the station user to redirect calls to Voice Mail or Do-Not-Disturb.

The Redirect Ringing Call feature does not require premium features. Some specific aspects of this feature are described below.

- Calls are redirected using the feature code 331. This code is entered, followed by the desired destination number.
- If the endpoint receiving the redirected call is a display endpoint, it will show EXT XXXX FWD FROM EXT XXXX just as it does for a manually forwarded call.

- Calls may not be redirected back to the originating station. This will result in a message on the display saying CALL FORWARDED TO SOURCE. For non-display endpoints, the call will simply ring back at the station.
- Calls may not be redirected to restricted outside numbers, to stations in Do-Not-Disturb mode, or to stations that are forwarded. Redirected calls will not follow call forwarding.
- Agent Help Request calls, queue callbacks, and recalls cannot be redirected (these types of calls do not follow call forwarding).
- Calls cannot be redirected to another station's mailbox, because redirected calls will not follow forwarding.
- If the call is redirected to an unreachable destination, it will not be redirected and will ring back at the original station.
- If an ARS, trunk group, or trunk number is entered, the system will prompt the user to enter the destination phone number. Calls may not be redirected to a node number, but may be directed to a station on another node by entering the correct extension number.
- If the applicable Forwarding timer expires before the user completes the redirection process, the system terminates the call.

Paging

The Paging feature allows announcements to be made through endpoint internal speakers. Optional external paging equipment (amplifiers and paging speakers) may also be installed.

There can be up to 10 paging zones. When the system is in the default state, all Inter-Tel endpoints are assigned to paging zone 1 to provide an all-page zone. Inter-Tel endpoints, trunks, and the external paging port(s) can be assigned to any, all, or none of the paging zones, as desired.

NOTE Placing a large number of Inter-Tel endpoints in a paging zone may affect system performance. If system operation is affected when a page is placed to a particular page zone, remove some Inter-Tel endpoints from that zone or change to external paging for the area served by that page zone.

In a network, all Inter-Tel endpoints and trunks within a page zone must reside on the same node as the page zone. However, a page zone can contain external page ports on other nodes.

NOTE Because the external paging ports have intercom numbers (91000 and 91001), stations can place an intercom call to the external paging ports, instead of using the Page feature, to make a page over the external paging speakers.

Pages are not heard on Inter-Tel endpoints that have been removed from paging (using the feature code as described below), are in Do-Not-Disturb, are ringing, or are in use. Also, background music on endpoints and on external speakers connected to endpoint speaker leads is interrupted for pages. If a trunk in a paging zone is unplugged, the page cannot be completed.

If desired, Inter-Tel endpoint users can program feature buttons to select the paging zones 0–9 (or 0–49) using paging access codes 9600–9609 (or 9600–9649).

The Page timer limits the length of pages. If it is set to 0, pages are unlimited in length.

To make a page:

1. Lift the handset.
2. **Inter-Tel endpoints—**Press the PAGE button, or enter the Page feature code (7). The display shows SELECT PAGE ZONE # (0–9).

   Single line endpoints—Enter the Page feature code (7).
3. Enter the zone code (0–9 or 0–49) for the desired zone.
4. After the single progress tone, make your page before the Page timer expires. If you hear reorder tones, and the display shows PAGE ZONE NOT PROGRAMMED, there are no stations in the selected page zone. If the display shows PAGE ZONE BUSY TRY AGAIN LATER, the necessary system resources are busy or the paging zone is being used by another station. Users cannot camp on to or queue the paging system.
5. Hang up.

Remove from Paging

An Inter-Tel endpoint user can prevent the endpoint from receiving pages or allow it to receive pages again using these feature codes. If the endpoint is assigned to more than one page zone, all zones are removed or replaced; the user cannot toggle individual zones.

To halt or enable zone pages:

1. While on- or off-hook, enter the Page Receive On/Off feature code (325) to prevent the endpoint from receiving pages. You hear a confirmation tone and the display shows PAGE RECEIVE ON (or OFF).
2. ***If off-hook,*** hang up.

Do-Not-Disturb

Placing a station in Do-Not-Disturb halts all pages, incoming intercom calls, camped-on calls, and transferred calls to that station. Queue callbacks, recalls, and direct ring-in calls are not blocked. Another user calling the station while it is in Do-Not-Disturb hears a repeating signal of four fast tones and a pause (display endpoints show the Do-Not-Disturb message); the user cannot camp on, but can queue or leave a message at the station.

NOTE Direct ring-in calls forwarded to a station in DND will ring according to the DND rules.

If desired, individual stations can be prevented from using Do-Not-Disturb by disabling the Do-Not-Disturb option in the database.

If a hunt group station is in Do-Not-Disturb, calls to the user's hunt group do not cause the endpoint to ring, but the individual trunk button will flash if all other stations in the hunt group are busy, forwarded, have hunt group remove enabled, or are in Do-Not-Disturb. Hunt group announcement stations and overflow stations can use Do-Not-Disturb to block hunt group calls by using Do-Not-Disturb.

Inter-Tel endpoints may be given Do-Not-Disturb override permission. These stations, when reaching a station in Do-Not-Disturb, can enter the Do-Not-Disturb Override feature code (373) to place a non-handsfree intercom call to the station. Single line endpoints cannot be enabled to use the Do-Not-Disturb Override feature.

When a station is placed in DND, the user may select one of 20 system-stored messages that will appear on the top line of the display (unless Do-Not-Disturb is enabled while the user is on a call or off-hook, in which case message 1 is automatically selected). When a station in Do-Not-Disturb is called by a display endpoint user, the caller sees the selected message.

Do-Not-Disturb messages are programmed in the database or using an Administrator endpoint. Default Do-Not-Disturb messages are programmed as shown in the following table.

Table 32. *Do-Not-Disturb Messages*

01 DO-NOT-DISTURB	11 OUT OF TOWN 'TIL
02 LEAVE A MESSAGE	12 OUT OF OFFICE
03 IN MEETING UNTIL	13 OUT UNTIL
04 IN MEETING	14 WITH A CLIENT
05 ON VACATION 'TIL	15 WITH A GUEST
06 ON VACATION	16 UNAVAILABLE
07 CALL ME AT	17 IN CONFERENCE
08 AT THE DOCTOR	18 AWAY FROM DESK
09 ON A TRIP	19 GONE HOME
10 ON BREAK	20 OUT TO LUNCH

Do-Not-Disturb works as follows in a network setting:

- Each node has a list of Do-Not-Disturb messages that can be used only on that node.
- An Intercom caller sees other users Do-Not-Disturb status when calling across nodes.
- The network allows DND override across nodes.

The system has default Do-Not-Disturb messages in both the Primary and Secondary Language. However, messages that use Japanese characters can be reprogrammed only through a Model 8660 endpoint designated as an Administrator endpoint. Refer to “System Programming” on page 20.

The language of the messages seen by the station user, both when programming his or her station and when calling another station that is in Do-Not-Disturb, is determined by the station’s programmed language. That is, if a station is programmed for Japanese, the user will see only Japanese messages when programing a Do-Not-Disturb message. If that station calls an American English-programmed station that has selected Do-Not-Disturb message 02, the Japanese station’s user will see the Japanese version of message 02.

The second line of the message can be customized with a numeric/alphanumeric message of up to 16 characters (English/Spanish and/or Japanese characters). The customized message is entered as described below. When entering a customized Do-Not-Disturb message, you can press the MSG button or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (#) button is used for entering a hyphen (-), and the asterisk (*) button is used for entering a colon (:). For example, 1 * 00 would enter “1:00” in numeric mode. When programming a custom Do-Not-Disturb message, the station is automatically in numeric mode.
- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 33377744432999 would enter “FRIDAY.” When adjoining characters are located under the same button, press the FWD button once to advance to the next character. For example, 6 FWD 666 FWD 6632999 would enter “MONDAY.”

Table 33. *Programming in Alphanumeric Mode*

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS****					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	’	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

When using either mode, endpoint users may use the Speed Dial buttons and/or the REDIAL button to enter stored numbers or messages. Speed-dial numbers can be chained together when entering messages that require more that 16 keystrokes to create the desired message. When programming a message in Speed Dial memory, you can use the Special button to enter a hookflash (F) in place of the FWD button to advance or insert spaces, or to enter a pause (P) to change numeric/alphanumeric modes within the message. The Special button can also be used to enter * or # in the Speed Dial number. Users can also place their endpoints in Do-Not-Disturb using the Remote Programming feature described on page 204.

To enable Do-Not-Disturb mode:

1. **Inter-Tel endpoints:** While on-hook, press the DND button, or enter the Do-Not-Disturb feature code (370) or Do-Not-Disturb On/Off feature code (372). Display endpoints show SELECT DND MESSAGE # (01-20).
2. **Single line endpoints:** Lift the handset and enter the Do-Not-Disturb feature code (370) or the Do-Not-Disturb On/Off feature code (372). You hear a progress tone.
3. To select message 01 (DO-NOT-DISTURB):

   Inter-Tel endpoints—Press the Speaker button or lift and replace the handset. The DND button lights.

   Single line endpoints—Hang up.

   To select any of the 20 preprogrammed messages: Enter the desired number (01-20), or press the **SCROLL** menu button to begin scrolling. Display endpoint users may scroll through the messages by pressing the high end of the Volume button or the **NEXT** button to go forward, or the low end of the Volume button or the **PREVIOUS** button to go backward (the display shows the selected message). If you enter an invalid message number, you will hear reorder tones, and the display shows INVALID DND MESSAGE NUMBER; try again.

4. **If desired, customize the second line of the message:** Use any combination of the following methods.

   a. ***Remain in numeric mode:*** Press the dialpad buttons to enter the desired number. Use the pound button (#) for a hyphen (-) and the asterisk button (*) for a colon (:). Inter-Tel endpoint users can press the FWD button once to leave a space, or press the MUTE button to backspace.

   b. ***Change to alphanumeric mode (Inter-Tel endpoints only):*** Press the MSG button (the button lights) or the **USE ALPHA MODE** menu button, then enter the desired characters. Refer to the chart above. Inter-Tel endpoint users can press the FWD button once to advance or twice to leave a space, or press the MUTE button to backspace.

   c. ***Use Speed Dial and/or redial numbers (Inter-Tel endpoints only):*** In either numeric or alphanumeric mode, you can speed dial a number (using the Speed Dial button or feature code). In numeric mode you can press the REDIAL button to enter the stored characters. You may chain Speed Dial and/or redial numbers together.

5. Terminate programming:

   Inter-Tel endpoints—Press the Speaker or the **ACCEPT** button, or lift and replace the handset. The DND button lights. (Display endpoints show selected message. Date and time appear on the second line if there is no customized message.)

   Single line endpoints—Hang up.

To cancel Do-Not-Disturb:

Model 8660 or 8662: While on-hook, press the lit DND button. The button goes off, and the display shows DO NOT DISTURB OFF.

Other Inter-Tel endpoints: While on-hook, press the lit DND button, or enter the Cancel Do-Not-Disturb feature code (371) or Do-Not-Disturb On/Off feature code (372). The button goes off, and the display shows DO NOT DISTURB OFF.

Single line endpoint: Lift the handset, enter the Cancel Do-Not-Disturb feature code (371) or Do-Not-Disturb On/Off feature code (372), and hang up.

To place your busy station in Do-Not-Disturb while a call is camped on:

If, while on a call, you hear call waiting signals and you want to let the caller know you do not want to be disturbed:

Inter-Tel endpoints—Press the DND button or press the Special button and then enter a Do-Not-Disturb feature code (370 or 372). The button lights. The display shows DO-NOT-DISTURB ON. The intercom caller is no longer camped on and receives Do-Not-Disturb indications.

Single line endpoints—(This procedure will interrupt your call in progress!) Hookflash and enter the a Do-Not-Disturb feature code (370 or 372). The intercom caller is no longer camped on and receives Do-Not-Disturb indications. Hookflash twice to return to the current call.

Do-Not-Disturb Override

If your Inter-Tel endpoint is enabled for Do-Not-Disturb override and you hear Do-Not-Disturb tones when placing an intercom call, you may use the following procedure to break through Do-Not-Disturb and complete the call.

Do-Not-Disturb override (Inter-Tel endpoints with this feature enabled only):

When you hear Do-Not-Disturb tones while placing an intercom call, press the Special button and enter the Do-Not-Disturb Override feature code (373). If the called station is idle, the call rings as a private intercom call. If the called station is busy, your call camps on.

Remote Feature Programming

The Remote Programming feature allows a user to place an endpoint in Do-Not-Disturb mode (DND) or forward the station's calls, or change the password; either from another station or through DISA. Each station has a password to limit access to this feature. (See page 132 for information about DISA.)

In a network, Remote Programming can be performed on one node for any Inter-Tel endpoint that is programmed as an off-node device on that node. You must go through DISA for remote programming of any endpoints that are not programmed as off-node devices.

Endpoint Password

The endpoint password is used only for the Remote Programming feature.

> **NOTE** To prevent unauthorized use of the call forward feature, ***all*** endpoints using Remote Programming should have a password. To make the passwords difficult to guess, they should not match the extension number or consist of one digit repeated several times.

The endpoint password can be up to 8 digits in length. The default password is the extension number of the endpoint. The password can be changed by entering the Program Station Password feature code at the endpoint or when using the Remote Programming feature. It can also be programmed through Individual Endpoint programming.

If the password is changed from an endpoint, the user will be prompted for the old password, then the new password, and will be asked to verify the new password. If it is programmed through Remote Programming, the user will already have entered a correct password. In this case, the user is prompted only for the new password and then asked to verify the password.

Should the verified password and new password not match, the old password will be retained and the programming session canceled.

To change the station password from your station:

1. Enter the Program Station Password feature code (392). You hear a confirmation tone. If you have a display, it shows ENTER PASSWORD.
2. Enter your current password, followed by #. (At default, it is your extension number.) If you have a display, it shows NEW PASSWORD.

   > **NOTE** If you enter an incorrect password, the display will show INVALID PASSWORD, and your endpoint will return to the idle state.

3. Enter the new password followed by #. You hear a confirmation tone.
4. Enter the new password again for verification followed by #. You hear a confirmation tone. If you have a display, it shows PASSWORD SAVED. Your station returns to idle.

To change the endpoint password using remote programming:

1. ***If calling from an outside endpoint,*** access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone.

   If programming from another endpoint, lift the handset or press the Speaker button.
2. Enter the Remote Programming feature code (359). You hear a confirmation tone. If you have a display, it shows ENTER EXTENSION.
3. Enter the extension to be programmed. You hear a confirmation tone. If you have a display, it shows ENTER PASSWORD. ***If you entered an invalid extension number,*** you will hear reorder tones and can try again.
4. Enter the extension's password followed by #. You hear a confirmation tone.

   If you enter an incorrect password, the display will show INVALID PASSWORD. Outside callers will be returned to dial tone, and stations will return to the idle state.
5. Enter the Program Station Password feature code (392). You hear a confirmation tone. If you have a display, it shows NEW PASSWORD.
6. Enter the new password, followed by #. You hear a confirmation tone.
7. Enter the new password again for verification, followed by #. You hear a confirmation tone. If you have a display, it shows PASSWORD SAVED. Outside callers will hear dial tone, and endpoint return to the idle state.

Remote Do-Not-Disturb Programming

To place a station in Do-Not-Disturb mode using the remote programming feature:

NOTE After each entry, non-display endpoint users will hear a confirmation tone. Outside callers using a DISA line will hear confirmation tone followed by DISA dial tone. Display endpoint users will not hear confirmation tones but will see a prompt asking for the next entry.

1. ***If calling from an outside endpoint,*** access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone followed by DISA dial tone.

   If programming from another station, lift the handset or press the Speaker button.
2. Enter the Remote Programming feature code (359). If you have a display, it shows ENTER EXTENSION. Model 8660 or 8662 endpoint users can press the IC DIR button to use the intercom directory to look up a number.
3. Enter the extension to be placed in DND. If you have a display, it shows ENTER PASSWORD. ***If you entered an invalid extension number,*** you will hear reorder tones and can try again.
4. Enter the extension's password, followed by #. If you have a display, it shows ENTER FEATURE CODE.

   NOTE If you enter an incorrect password, the display will show INVALID PASSWORD, and the call is disconnected. Station users will hear reorder tones.

5. To turn on Do-Not-Disturb:
   a. Enter the Do-Not-Disturb On feature code (370). (The On/Off feature code cannot be used in remote programming.) ***If you entered an invalid feature code,*** you will hear reorder tones and can try again.

> **NOTE** If the station you are programming is not allowed to use DND, you hear reorder tones, and the display shows CANNOT ACCESS RESERVED FEATURE. Outside callers are returned to dial tone, and stations return to the idle state.

   b. Enter the desired Do-Not-Disturb message number (01-20). ***If you entered an invalid message number,*** you will hear reorder tones and can try again.
   c. Enter the optional second-line message text, if desired, using any combination of the following methods:

      Remain in numeric mode: Press the dialpad buttons to enter the desired number. Use the pound button (#) for a hyphen (-) and the asterisk button (*) for a colon (:). Inter-Tel endpoint users can press the FWD button once to leave a space, or press the MUTE button to backspace.

      Change to alphanumeric mode (Inter-Tel endpoints only): Press the MSG button (the button lights) or the **USE ALPHA MODE** menu button, then enter the desired characters. (Refer to the chart and instructions in your user guide.) Inter-Tel endpoint users can press the FWD button once to advance or twice to leave a space, or press the MUTE button to backspace.

      Use Speed Dial and/or redial numbers (Inter-Tel endpoints only): In either numeric or alphanumeric mode, you can speed dial a number (using the Speed Dial button or feature code). In numeric mode you can press the REDIAL button to enter the stored characters. You may chain Speed Dial and/or redial numbers together.

   a. Hang up to complete the programming.

6. **To turn off Do-Not-Disturb:** Enter the Do-Not-Disturb Off feature code (371). (The On/Off feature code cannot be used in remote programming.) The call is automatically disconnected when the feature code is accepted. ***If you entered an invalid feature code,*** you will hear reorder tones and can try again.

Remote Forward Programming

To forward a station using the remote programming feature:

> **NOTE** After each entry, non-display endpoint users will hear a confirmation tone. Outside callers using a DISA line will hear confirmation tone followed by DISA dial tone. Display endpoint users will not hear confirmation tones but will see a prompt asking for the next entry.

1. ***If calling from an outside endpoint,*** access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone followed by DISA dial tone.

   If programming from another station, lift the handset or press the Speaker button.

2. Enter the Remote Programming feature code (359). If you have a display, it shows ENTER EXTENSION. Model 8660 or 8662 endpoint users can press the IC DIR button to use the intercom directory to look up a number.

3. Enter the extension to be forwarded. If you have a display, it shows ENTER PASSWORD. ***If you entered an invalid extension number,*** you will hear reorder tones and can try again.
4. Enter the extension's password, followed by #. If you have a display, it shows ENTER FEATURE CODE.

> **NOTE** If you enter an incorrect password, the display will show INVALID PASSWORD, and the call is disconnected. Station users will hear reorder tones.

5. To turn on Call Forward:
   a. Enter one of the following Call Forward feature codes. ***If you entered an invalid feature code,*** you will hear reorder tones and can try again.

Call Forward All Calls	355
Call Forward If Busy	357
Call Forward If No Answer	356
Call Forward If No Answer/Busy	358

   a. Enter the forwarding destination. This can be an extension number or a trunk access code followed by an outside phone number.

      If the forward destination is an extension number, programming is complete, and the call is disconnected automatically.

      If the forward destination is an outside number, hang up to complete programming.

      If the station is not permitted to forward to the destination entered, you will hear reorder tones and can try again.

      If you hang up before entering a forward destination, the programmed forward is canceled.

6. **To turn off Call Forward:** Enter 355 and then hang up instead of entering a destination. You hear a confirmation tone.

Default Endpoint

An endpoint user can enter one feature code that will return the following features to their default states. Returning an endpoint to default:

- Cancels the following features, if in effect:
  - Do-Not-Disturb
  - Manual Call Forwarding
  - Queue Request
  - Account Code for All Calls Following
  - Background Music
  - Ring Intercom Always
  - Headset Mode
- Restores the following features, if disabled:
  - Handsfree
  - Page Receive
  - Hunt Group Replace
  - System Forwarding
- Returns endpoint volumes to default levels

- Returns endpoints to the standard keymap
- If the endpoint is a member of one or more ACD hunt groups, logs into the hunt group(s)

This feature is especially useful for installers and troubleshooters who need to know exactly how a given station is programmed.

To return the station to default:

Inter-Tel endpoints—While on- or off-hook, enter the Default Station feature code (394). You hear a confirmation tone, and the display shows STATION DEFAULTED. ***If off-hook,*** hang up.

Single line endpoints—Lift the handset and enter the Default Station feature code (394). You hear a confirmation tone followed by dial tone. Hang up.

Hookflash/Recall

A timed hookflash (recall in Europe) may be required for Inter-Tel endpoint and single line users to use certain telephone company or PBX features. The CO hookflash/recall feature code sends a timed hookflash/recall over the trunk when entered. A hookflash/recall restarts the call cost display and toll restriction, plus it starts a new line in the SMDR printout. However, the call remains on the same Call button.

The Hookflash/Recall feature can be enabled or disabled on a trunk group-by-trunk group basis. It can be used on any outside call, including conference calls.

The duration of the hookflash/recall can be changed by reprogramming the LS/GS CO Hookflash timer (default value is 0.6 seconds). If the system is not installed behind a PBX, the Hookflash timer must be programmed to be compatible with the system's trunks.

To send a timed hookflash/recall while on a trunk:

Inter-Tel endpoints—Press the Special button and enter Hookflash feature code 330.

Single line endpoints—Hookflash and then enter the Hookflash feature code 330.

Reminder Messages

NOTE This feature does not apply to single line endpoints.

Reminder messages are set, like an alarm clock, to signal an Inter-Tel endpoint at a specified time. The user can select the message and time up to 24 hours in advance. Twenty different reminder messages are available. These messages can be reprogrammed by the installer or using an administrator's station. They are limited to 16 characters.

At the programmed time, the reminder message signals the station with eight short tones. A display endpoint shows the message until it is canceled; a non-display endpoint receives tones only. If the station is busy, the user still hears the tones and the message displays for 10 seconds during the call, then the display returns after the user hangs up. (Reminder displays interrupt, but do not affect, programming.)

Table 34. *Default Reminder Messages*

01 MEETING	11 CALL ENGINEERING
02 STAFF MEETING	12 CALL MARKETING
03 SALES MEETING	13 CALL ACCOUNTING
04 CANCEL MEETING	14 CANCEL DND
05 APPOINTMENT	15 CANCEL CALL FWD
06 PLACE CALL	16 TAKE MEDICATION
07 CALL CLIENT	17 MAKE RESERVATION
08 CALL CUSTOMER	18 REVIEW SCHEDULE
09 CALL HOME	19 LUNCH
10 CALL CORPORATE	20 REMINDER

In a network, each node has a list of reminder messages that can be used only on that node.

The system has default reminder messages in both the Primary and Secondary Languages. However, messages using Japanese characters can be reprogrammed only through an administrator's station. Refer to "System Programming" on page 20.

The language of the messages seen by the station user is determined by the station's programmed language. That is, if a station is programmed for Japanese, the user will see only Japanese messages when programing a reminder message.

To request reminder messages:

NOTE Lift and replace the handset to stop the process without selecting a message.

1. While on-hook, enter the Reminder Message feature code (305). Display endpoints show SELECT REMINDER MSG # (01–20).
2. **To select a specific message:** Enter the two-digit message code (01–20). (Display endpoints show the selected message and SCROLL OR ACCEPT.)

   To scroll through the messages: View the available messages by pressing the high end of the Volume button or the **NEXT** button to scroll forward or pressing the low end of the Volume button or the **PREVIOUS** button to scroll backward. Each message displays for 0.5 seconds before another can be selected. When the desired message is displayed, press **#** or **ACCEPT**.
3. Enter the time that you want to receive the message. (If using a station programmed for Japanese, these prompts will be reversed, and you will set the AM/PM before the hour and minutes.)
   a. Enter the hour and minutes using four digits (e.g., 0900 for 9:00).

b. ***If the system is set for 12-hour display format,*** the display shows SELECT AM OR PM. Press 1 or the AM button for AM or press 2 or the PM button for PM. You hear a progress tone when it is accepted, and the display momentarily shows the selected reminder message and time.

> **NOTE** If an invalid time is entered, you hear reorder tones and must enter the time again. Display endpoints show INVALID TIME.

To receive a reminder message:

1. At the selected time, you hear eight short tones, and the message is displayed. Do one of the following:

   If your station is idle, go to the next step.

   If you are on a call, the message will display for 10 seconds. After you hang up, the reminder message returns and must be cleared.

   If you are programming your Inter-Tel endpoint, the programming function is interrupted. The message will display, but will not interrupt programming; you can continue. After programming is completed, the reminder message will return and must be cleared.

2. **To clear the message:** Remain on-hook and press *. The display shows EXPIRED REMINDER MESSAGE CLEARED.

To cancel all of your reminder message requests:

While on-hook, enter the Cancel Reminder Message feature code (306). The display shows REMINDER MSGS CANCELED. You cannot view or cancel individual messages.

Record Keeping and Maintenance Features

Call Cost Accounting

> **NOTE** The system's Call Cost Accounting feature is intended to provide a cost estimate that is applied to the various classes of calls. Due to the wide variation in charges among network carriers, the system's call cost calculation cannot be used as a prediction of actual charges. This feature can only be used as a management tool to estimate call cost.

The Call Cost Accounting feature estimates the cost of outgoing and incoming calls, displays it on the Inter-Tel endpoints, and prints it in the SMDR reports. The cost is based on the type of call, phone number dialed, the elapsed time of the call, the day of the week, and the time of day. A table in the database supplies the rates for all types of calls, including multiplicative factors for evening and weekend rate changes on outgoing calls. The equation for calculating call cost is:

Daytime Rate X Multiplicative Factor X Connect Time

The multiplicative factor adjusts the daytime per-minute call cost for evening and weekend rates of outgoing calls. For example, the evening call cost multiplier is 0.65 if calls are 35% less expensive after 5:00PM. The daytime rate (D), evening (E) multiplicative factor, and night/weekend (N/W) multiplicative factors are used on the following schedule.

Table 35. *Multiplicative Factor Cost Adjustments*

	SUN	MON	TUE	WED	THU	FRI	SAT
8 AM TO 5 PM	N/W	D	D	D	D	D	N/W
5 PM TO 11PM	E	E	E	E	E	E	N/W
11PM TO 8 AM	N/W	N/W	N/W	N/W	N/W	N/W	N/W

NOTE The system's Call Cost Accounting feature is intended to provide a ***cost estimate*** that is applied to the various classes of calls. Due to the wide variation in charges among network carriers, the system's call cost calculation cannot be used as a prediction of actual charges. This feature can only be used as a management tool to ***estimate*** call cost.

If call cost is set to zero, call cost will not display during the call and the SMDR printout will show $00.00.

In a network setting, the call cost shown on the display and SMDR output use the factors and rates for the node on which the trunk resides. In other words, if a station on Node 1 dials what is considered a long-distance number on Node 1, but the call is routed to Node 2 where the number is considered local, the Inter-Tel endpoint will use the local call cost rate from Node 2. The call rate used for calls between nodes will be based on the Network call rate.

All outgoing calls using a trunk that is not subject to toll restriction are classified as one of the following call types for call cost calculation (call cost type is programmed in the database).

- Free
- Local
- Toll Local
- Toll Long Distance
- Incoming
- Operator
- Network
- International

System Error/Message Print

The system has a self-diagnostic feature that monitors the system. When a system fault or other noteworthy condition is detected, the software determines the impact of the condition and classifies it as a major or minor alarm or as other message type. If the Message Print option is enabled, the messages are sent to the designated output port. For a complete list of Diagnostics codes, refer to the *Message Print Diagnostics Manual* (part number 550.8018).

The service technician may enable any combination of the error message types. The available message types are:

- **Information Messages:** These messages give information regarding system operation.
- **Warning Messages:** The warnings in these messages indicate that a condition exists which may affect system performance.
- **Alarm Messages:** Alarm messages indicate that a minor alarm has occurred, but that general system operation was not affected.
- **Severe Messages:** These messages indicate that a severe error occurred in the system.

The messages can be programmed to be sent to any output device attached to the system. Messages can be printed through only one system port at a time. The print width is adjustable (64, 80, or 132 characters) to accommodate different output devices. When a line of information is longer than the programmed width, the information is printed on subsequent lines and preceded with "+" to indicate the continuation.

The system database also has a reserved area for recording the history of messages to allow service personnel to request a report at any time. The message history area has enough memory to maintain a record of at least 50 of the most recently generated messages. When the reserved area is full, the more recent messages begin to replace the older ones so that the most recent messages are available.

In a network setting, each node has its own message print programming, message print output port, and message print output port backup. There should be a message print terminal at each node to monitor node and network performance and aid in troubleshooting.

- If a node's Message Print output port is a node, the network sends Message Print records to the specified node.
- You cannot select a node as the message print output port backup.
- If Message Print output programming forms a loop, the system will send the output to the node's backup Message Print port. For example, if the Message Print port on Node 1 routes to Node 2 and the Message Print port on Node 2 routes to Node 1, the configuration will cause an infinite loop. Message Print reports for Node 1 would be printed to the backup serial port on Node 2 and vice versa.
- A two digit node number is inserted in front of the sequence number to indicate the node where the message originated. The following is an example of the new message print string format for a message the originated on node 3:
- -03:001- 15:30 03-20 M6009 WRN EG CP
- Corrupted Queue Was Cleared: HISTORY QUEUE
- Message Print will ***not*** route diagnostic messages that apply to another node, except during manual Message Print requests. Those messages will only be printed locally.
- Message Print will ***not*** route messages during a startup or reset. The system will wait one minute before starting to send messages. Startup messages will only be printed locally.
- Messages may not be printed in time sequence order on remote nodes. The order of an incoming message print depends on how the message print was routed to the destination node. Therefore, a message print could possibly arrive at the destination message print node out of order.

In addition to the messages, the following error indications will occur in the event of a system alarm:

- If a major system alarm occurs, MAJOR ALARM appears on all display endpoints. The warning might also appear on a single endpoint if the endpoint is defective. If all endpoints on the system are inoperative, the alarm message appears on the administrator's display endpoint and the chassis LCD panel.
- A minor alarm sends a message to the primary Attendant and to administrators, if programmed to receive alarms.

Each message record includes the following fields:

- **Sequence Number:** This field shows the order in which the faults occurred. If there is a skip in a series of sequence numbers, it indicates that a message was logged that is not programmed to be printed.
- **Time:** The Time field shows the time that the fault occurred. This field shows the hours and minutes in 24-hour format as HH:MM.

- **Date:** The Date field shows the date that the indicated fault occurred. The date shows the month and date as MM-DD.
- **Fault Code:** The Code field holds the associated number of the indicated fault. This field is four characters in length and the first character is an "M" for messages or "A" for minor alarms. Each of the different system faults that the system is capable of detecting is assigned a unique number (M100–M999 or A001–A299) in the system database.
- **Type:** This field indicates the following:
  - ***Alarms:*** The field shows "ALARM" for system faults that have not stopped system operation.
  - ***Information Messages:*** The field shows "INF." The condition requires no attention.
  - ***Warning Messages:*** The field shows "WRN." The condition requires attention because it may affect system performance.
  - ***Severe Messages:*** The field shows "SVR." The condition requires attention because it has affected or will affect system performance.
- **Realm:** ***This field does not appear for Alarm messages.*** This two-character field indicates the realm responsible for the message. The field will contain one of the following abbreviations:
  - ***DB*** indicates that the message applies to the system database. These problems can often be fixed with appropriate database programming.
  - ***HW*** indicates the messages concerns the system hardware. Typically these problems are corrected by adjusting or replacing the affected hardware.
  - ***EG*** is indicative of a software error which will, most likely, require the intervention or attention of an Inter-Tel software engineer.
- **Source:** ***This field does not appear for Alarm messages.*** This two-character field indicates the software source responsible for the message.
  - ***CP*** indicates that Call Processing is the source
  - ***OS*** refers to the Operating System
  - ***SS*** refers to the System Software
  - ***AL*** refers to a Voice Processing System link
- **Text:** The Text field holds a text message that identifies the particular fault indicated by the record. This field is at least 40 characters in length and may extend onto subsequent lines if necessary to present adequate information about the fault. The information printed on an additional line is preceded with the character "+" to indicate the continuation.
- **Auxiliary:** When necessary, additional information may be printed as part of a message on separate lines. This additional information is referred to as "auxiliary text." To identify this text as pertaining to the previous message, each line is preceded with the "<"character.

Power Failure Capabilities

The Inter-Tel CS-5200/5400 chassis contains relay contacts that can be used for power failure bypass. This feature allows one or two single line telephones to connect to predetermined trunks in the event of a processor board failure or a power failure. Additional equipment is required.

Customized System Programming Reports

Customized system programming reports can be created through the database. The programmer can select the programming area to be reported and then select the information that will be included. When extension numbers are listed in a report, they can be sorted by name, extension number or circuit number. Reports can also be titled.

Audio Diagnostics Feature

The Audio Diagnostics feature code (default is 320) allows users to generate diagnostics information for audio problems. When the Audio Diagnostics feature is initiated, users are prompted to answer questions about the audio problems by pressing specific dialpad buttons. Based on those answers, the system generates alarm 128 on the administrator's endpoint. See "Managing System and Network Alarms" on page 35.

The Audio Diagnostics feature can be accessed when the endpoint is idle or when the user is on an active call. The amount of diagnostics information that the endpoint provides to the system depends on the state of the endpoint when the feature is accessed. An active call produces more diagnostic information than an endpoint in an idle state. If users do not want to access the Audio Diagnostics feature while on a call, they can access the feature immediately after they hang up.

In the following scenarios, the diagnostics information is not captured:

- If the user accesses the Audio Diagnostics feature but does not respond to the prompts on the display, the feature times out after 30 seconds.
- If either the user or the other party terminates the call before completing the diagnostics, the feature is terminated.

Audio Problems

When the Audio Diagnostics feature code (320) is entered, the system prompts users to select a characteristic of the audio problem. Users with 6-line display endpoints can either press the menu button that corresponds to the displayed audio problem or enter the numeric codes for the audio problem on their dialpads. Users with 2-line-display endpoints, or no-display endpoints, must enter the numeric codes on their dialpads because they do not have menu buttons.

A list of the 12 audio problems and the numbers associated with them is provided in the following table.

Table 36. *Default Audio Diagnostics Audio Problem Numbers*

AUDIO PROBLEM	NUMBER	AUDIO PROBLEM	NUMBER
Echo	01	Too Loud	07
Static	02	Distorted	08
One-Way Audio	03	Delayed Audio	09
No Audio	04	Clipping	10
Choppy Audio	05	Cross-Talk	11
Too Soft	06	Other	12

Although there are 12 pre-defined audio problems, only four can be programmed for the system. The default numbers of the four selected audio problems may also be changed.

Specifying Audio Direction

After selecting the audio problem, the system prompts the user to choose the direction of the audio problem. The following options are available:

- ONLY I HEAR IT (users with a 2-line display, or a no-display, endpoint press 1)
- ONLY THE OUTSIDE (users with a 2-line display, or a no-display, endpoint press 2)
- WE BOTH HEAR IT (users with a 2-line display, or a no-display, endpoint press 3)

Using Record-A-Call For Diagnostics

If the Record-A-Call feature has been programmed for the station, users can record the call while using the Audio Diagnostics feature (see page 215).

NOTE The Record-A-Call feature cannot be used on certain calls such as Agent Help, Station Monitor, Conferences, and Paging.

Collecting Audio Diagnostics Data

If your Inter-Tel service technician instructs you to collect this diagnostics data, perform a System History Freeze using the instructions in the "Freezing/Unfreezing the System History" section of this guide, see page 42.

Using the Audio Diagnostics Feature

Only stations with the Audio **Diagnostics feature** enabled can use the feature.

NOTE Only 6-line display endpoints have the menu buttons mentioned in these instructions. Users who have endpoints with a 2-line display, or no display, must use the numeric entries to use the Audio Diagnostics feature.

To use the Audio Diagnostics feature:

1. ***If the endpoint is idle,*** while on-hook, enter the Audio Diagnostics feature code (320).

   If you are on an active call, press ∞, then enter the Audio Diagnostics feature code (320).

   The display shows PLEASE SELECT AUDIO PROBLEM.

2. Do one of the following to select an audio problem:

   EITHER, Press the desired menu button.

   OR, Enter the two-digit numeric code (01-12) that corresponds to the audio problem (see page 214).

   The display shows PLEASE SELECT AUDIO DIRECTION.

   ENTER TWO DIGIT
   AUDIO PROBLEM
   ECHO
   STATIC
   DELAYED AUDIO
   OTHER

3. Select the direction of the audio problem.

   EITHER, Press the desired menu button.

   OR, Press the dialpad button that corresponds to one of the following responses:

   - Press 1 for ONLY I HEAR IT.
   - Press 2 for ONLY OTHER PARTY.
   - Press 3 for WE BOTH HEAR IT.

   PLEASE SELECT
   AUDIO DIRECTION

   ONLY I HEAR IT
   ONLY OTHER PARTY
   WE BOTH HEAR IT

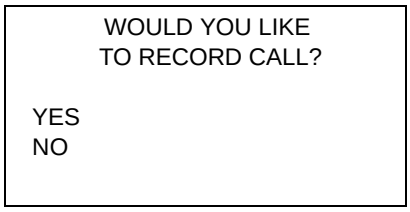
If the Record-A-Call feature is enabled for your endpoint, the display shows WOULD YOU LIKE TO RECORD CALL?

4. If the Record-A-Call feature is available, you have the option of recording the call.

   EITHER, Press the desired menu button.

   OR, Press the dialpad button that corresponds to one of the following responses:

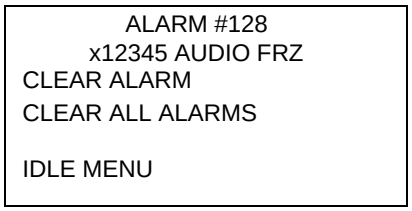
   - Press **1** to record the call.
   - Press **2** to continue without recording.



NOTE If the system cannot accurately record the call, the display shows CALL CANNOT BE COMPLETED.

5. Hang up to complete the Audio Diagnostics feature.

   When the Audio Diagnostics selections are completed, the system generates Alarm 128 and the administrator station displays ALARM #128 <*extension number*> AUDIO FRZ.



NOTE To learn which Audio Diagnostics codes have been enabled for the system, consult an Inter-Tel field technician.

Responding to the Audio Diagnostics Feature

To respond to Alarm 128:

Alarm 128 indicates that someone has completed the Audio Diagnostics feature. Contact your Inter-Tel service technician so that they can poll the information for troubleshooting purposes.

Phantom Devices

Phantom devices are virtual extension numbers that are created for users who are usually not physically in the office and who do not need endpoints to retrieve calls or messages. Phantom devices do not consume a physical hardware address and do not count against the system total-device count.

Phantom devices:

- Cannot make or receive calls
- Cannot be programmed as System Administrators
- Have a Voice Mailbox
- Have the ability to forward endpoint calls to a current location (such as to a cell endpoint, pager, or home endpoint)

If the phantom device has a Voice Mailbox, the extension appears in the Voice Mail directory and the system intercom (IC) directory. Voice mail indications and endpoint silent messages are stored in the phantom device information.

Phantom devices remain in Do-Not-Disturb (DND) mode at all times and programming will not allow them to go out of DND. When created, a phantom device is automatically set into DND. By default, the phantom DND status is “Unavailable,” but you can access the Remote Programming feature code (default is 359) to change the DND status.

When created, phantom devices are automatically added to the *All Endpoints* extension list. Phantom devices can be forwarded and follow the rules for endpoint manual forwarding and system forwarding.

Voice Processing Features

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Introduction

This section describes the voice processing system features supported by Inter-Tel voice processing systems. Features are dependent on the voice processing system, the equipment used, and the site's licensing. Contact your local Inter-Tel reseller to determine which voice processing system features are supported on your system.

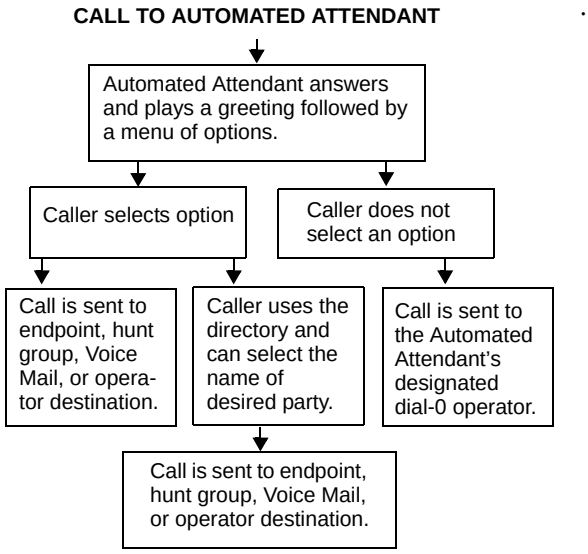
Automated Attendant

The automated attendant is a programmable feature that can be used to provide an automated call answering service. Calls can transfer, forward, or directly ring in to an automated attendant. An external voice processing system (Enterprise Messaging or Voice Processing Unit) is required for the Automated Attendant feature on the Inter-Tel 5000 system.

For information on external voice processing systems, refer to page 5.

Calls to Automated Attendant are processed as shown in the following illustration.

Figure 14. *Call to Automated Attendant Example*


CALL TO AUTOMATED ATTENDANT
Automated Attendant answers and plays a greeting followed by a menu of options.
Caller selects option
Caller does not select an option
Call is sent to endpoint, hunt group, Voice Mail, or operator destination.
Caller uses the directory and can select the name of desired party.
Call is sent to the Automated Attendant's designated dial-0 operator.
Call is sent to endpoint, hunt group, Voice Mail, or operator destination.

When an automated attendant answers a call, it plays a recording that gives dialing instructions. During or after the recording, the caller may then directly dial an endpoint extension number, Voice Mail access number (if there is no associated mailbox), or hunt group pilot number. Or, the caller may use the directory to look up the desired extension.

The caller then has the following options:

- **Dial an endpoint extension number:** If an extension number is dialed, the call is transferred to the selected endpoint. If ringback tones are enabled, the caller hears ringing while the call is being transferred. If ringback is not enabled, the caller hears music. If the called endpoint is forwarded, the call follows the programmed forward.
- **Dial a hunt group number:** When a hunt group number is dialed, the call is transferred to the selected hunt group. The call rings or circulates according to how the hunt group is programmed (linear or distributed). If ringback tones are enabled, the caller hears ringing while the call is being transferred.

- **Dial the Voice Mail application's extension number:** The caller can reach the Voice Mail main greeting by dialing the application extension number (access number) assigned to the Voice Mail feature. The caller can then leave a message as a non-subscriber or access any of the Voice Mail subscriber features. (See page 241 for Voice Mail information.)
- **Use the directory:** If the caller does not know the extension or mailbox number of the desired party, he or she can spell the name using the dialpad buttons and "look up" the number in the directory. (This option can be disabled in the database. Or, if there are no names recorded for the individual mailboxes or for the system's extension IDs, this option will not be provided.) Directory names can be sorted by first or last name. (Refer to page 241 for information about using the directory.)
- **Dial the operator access destination:** If the caller needs further assistance, dialing 0 will access the voice processing system's programmed operator destination. Or, if the caller is on a rotary endpoint and cannot enter a digit, the call will be automatically transferred to the operator destination. (The operator access destination is programmed in the database. There can be separate destinations for day and night modes.)

NOTE Due to the natural characteristics of the trunk, the volume level of DTMF tones transmitted over the trunk may be substantially reduced before reaching the system and voice processing system. This natural degradation in tone volume may adversely affect the reliability of the Automated Attendant feature. Other factors which can affect Automated Attendant performance are trunk noise and the quality and strength of the DTMF tones generated by the off-premises endpoint itself.

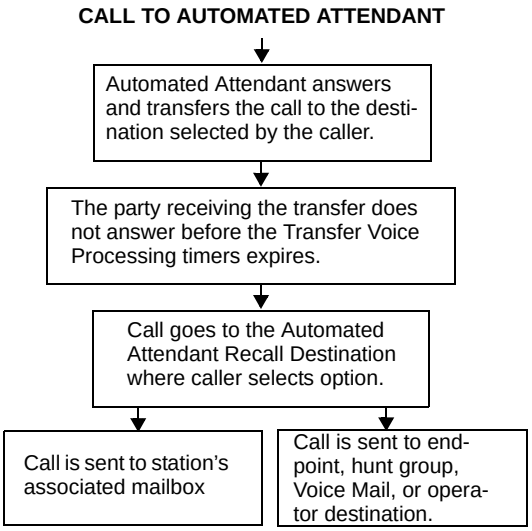
Automated Attendant Applications

There are a number of different uses for this feature. Here are two examples:

- Direct ring-in calls to a busy Attendant could be forwarded to Automated Attendant (using the Call Forward If Busy feature or system forwarding).
- Calls could ring in directly to Automated Attendant application's extension number when the system is in day and/or night mode.

Automated Attendant Recall Destination

When an endpoint receives a call that has been routed through Automated Attendant, the call is handled as a transferred, call and the display shows TFR FROM *(description)*. If the call is not answered, the call recalls Automated Attendant's recall destination. The recall destination is usually the Automated Attendant Recall Destination application which announces that the called endpoint is unavailable and allows the caller to choose to leave a message (if the endpoint has an associated mailbox) or dial another extension number.


CALL TO AUTOMATED ATTENDANT
Automated Attendant answers and transfers the call to the destination selected by the caller.
The party receiving the transfer does not answer before the Transfer Voice Processing timers expires.
Call goes to the Automated Attendant Recall Destination where caller selects option.
Call is sent to station's associated mailbox
Call is sent to endpoint, hunt group, Voice Mail, or operator destination.

If the Recall Destination fails to answer a call, it is automatically sent to the recall destination's programmed Attendant. If the call is not answered there, it is disconnected after the Abandoned Call timer expires.

If an invalid number is dialed, the caller is prompted to enter another number. If a caller fails to enter a number before the Inactivity Alarm timer expires, the caller is prompted again. The caller cannot access trunks or enter feature codes through the Automated Attendant application. Trunk access codes and feature codes are considered invalid numbers.

Automated Attendant Custom Audiotex Recordings

Custom audiotex recordings are made using the Voice Mail Administrator's mailbox as described on page 51. Each recording is associated with a recording number and assigned to the application(s) in Database Programming or using the System Administrator's mailbox.

Call Screening

Calls transferred from the Automated Attendant or a Call Routing Announcement application can be screened, announced, or unannounced.

When an automated attendant or Call Routing Announcement application receives a call, and the caller enters an extension number, the endpoint programmed Transfer Method determines how the call is transferred. For more about the Transfer Method, see page 45. The Transfer Method flags can be programmed in the database by the service technician, but if allowed in mailbox programming, they can also be programmed by the mailbox user. The available Transfer Methods are as follows:

- **Announce Only**: The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the endpoint user answers the transfer, the application plays the caller's name and completes the transfer.
- **Screened**: The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the endpoint user answers the transfer, the application plays the caller's name. The endpoint user has the options of replaying the name, sending the call to Voice Mail (if the extension has a mailbox), transferring the call to another extension, accepting the call, or rejecting the call.
- **Unannounced**: The call is transferred to the associated extension number after the Voice Processing Unit checks the endpoint to determine its status (busy, available, ringing, etc.). This is the default method.

In a network setting, an external voice processing system can provide call screening for a destination extension on another node. However, the node where the external voice processing system is connected must have an off-node device programmed for the destination extension and access to the remote node.

To receive an Announce Only, Screened, or Unannounced transferred call:

Depending on the Transfer Method programmed for the mailbox or extension ID, one of the following will occur when a transferred call is received from the automated attendant or a Call Routing Announcement application:

- **"Announce Only" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The Voice Processing Unit then places a private call to your endpoint. When you answer, it plays *"You have a call from (caller's name)."* It then completes the transfer, and the transferred call rings at your endpoint. Answer as usual.
- **"Screened" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The Voice Processing Unit then places a private call to your endpoint. When you answer, it plays *"You have a call from (caller's name),"* and gives you the following options:
  - *To accept the call*, press # or the **ACCEPT** menu button. The call will ring at your endpoint.
  - *To replay the announcement*, press 1 or the **REPLAY** menu button.
  - *To send the call to voice mail*, press 2 or the **SEND TO V-MAIL** menu button. The caller is transferred to your mailbox and hears your personal greeting.
  - *To forward the call to another extension*, press 3 or the **FORWARD** menu button. Then enter the extension number. The call is sent to the other endpoint. If that endpoint has screened or announced transfers, the caller's name will be played again for that endpoint.

— *To refuse the call*, press * or the **REFUSE** menu button, or simply hang up. The caller receives a recording that says you are not available and offers them the option of leaving a message.

- **"Unannounced" Calls:** This is the default method for transferring a call. The call is transferred to your endpoint without any kind of announcement.

Extension ID

Extension IDs are used in conjunction with transferring calls through the Automated Attendant or using the Extension Directory. The extension ID allows callers to be transferred to endpoints and applications that do not have mailboxes. It also allows the endpoint or application to have a recorded name in the directory. This feature is set up and initialized using Database Programming and Voice Mail features.

If an Extension ID has been created in Database Programming for an endpoint extension number, either the principal owner of the extension or the Voice Mail Administrator must set up (initialize) the ID with a new password and record a name for use in the Extension Directory. At default, the extension ID password is the same as the extension number.

If the Extension ID has not been "initialized," calls can still be transferred to the associated extension number. However, they cannot be accessed from the directory. If the Extension ID's username has not been recorded, it cannot be heard when callers access the Extension Directory. The name must be recorded in order to fully initialize the Extension ID. See page 44 for more information on initializing Extension IDs.

NOTE To provide system security, ***all*** extension IDs should have a password. To make the passwords difficult to guess, they should not match the endpoint's extension number or consist of one digit repeated several times. The default password should be changed the first time the user logs in.

Once a password has been set up and the name recorded, the extension owner may access Extension ID Options which allows the associated directory name and password to be modified.

If an Extension ID has not been created for a endpoint, callers using Automated Attendant cannot be transferred to that destination. Instead, these callers will receive a system recording notifying them of an invalid entry and are routed back to Automated Attendant's main menu.

Individual extension IDs can be programmed as "Private" in Database Programming. A Private number is included in the directory and can be dialed if the caller knows the number, but the extension number information is not available to the caller; only the name is played.

Extension IDs can also be programmed as "Unlisted." That means that the number will not be included in the directory, but can be dialed if the caller knows the extension number.

Calls transferred from the Automated Attendant or a Call Routing Announcement application to endpoints with extension IDs can be screened, announced, or unannounced. Programming flags determine the methods used for transferring calls to endpoints with Extension IDs. (See page 105 for details.)

Automatic Fax Detection

NOTE This feature is only available when using an external voice processing system (EM or VPU.)

With Automatic Fax Detection, Call Routing Announcement applications and mailboxes can be programmed to automatically route incoming fax calls to a specified extension or to an e-mail address.

If the feature is enabled, the mailbox or Call Routing Announcement Application will automatically listen for fax tone.

- A mailbox will listen for fax tones during the mailbox greeting and while a message is being recorded. If the mailbox detects fax tones, the call will be transferred to the specified extension or e-mail address. If the tones are detected after a recording has started, the call will be disconnected.
- Call Routing Applications will be able to detect fax tones during the greeting and up to time-out. The fax tone detection will also be disabled if the caller performs an action that removes them from the Call Routing Announcement (transferring to an extension, transferring to a mailbox, etc.).

If the fax card is busy when an incoming fax call is received, the call will be disconnected.

Fax E-mail Requirements

To send faxes to an e-mail address using the Fax-On-Demand feature, the Unified Messaging feature, described on page 247, must also be enabled.

Fax Card Requirements

To send and receive faxes, the voice processing system PC must have a fax card installed. This can be the same fax card that supports the Fax-On-Demand feature. The software will support up to eight fax ports.

Fax E-mail Message Format

The e-mail message sent by the Voice Mail has the following components:

- **To:** The TO line contains the recipient's e-mail address.
- **From:** The FROM line contains the e-mail address of the voice processing system. If an E-mail Real Name has been programmed for the voice processing system, it will also be shown on this line.
- **Subject:** The SUBJECT line contains the line "Fax received from <*source*>." The source will be the Call Routing Application number or the mailbox number from where the fax is received, for example: CRA 2505 or MB 1000.
- **Received On:** The RECEIVED ON line contains the date and time that fax was received.
- **`FAX.TIF` file attachment:** The file attachment appears as a file with the name **`FAX.TIF`**. To view the fax, the user must display the **`TIF`** file using graphics software.

Automatic Speech Recognition

The Enterprise Messaging (EM) voice processing system supports Automatic Speech Recognition (ASR), which allows users to access voice mail, call routing applications, the automated attendant and the directories by issuing spoken commands instead of dialing digits on their endpoint. Because ASR is a very flexible feature, it can be enabled or disabled on several different levels. ASR also allows subscribers and non-subscribers to navigate automated attendant menus, call routing applications, and search the directories using voice commands. When ASR is enabled for a user's mailbox, he or she can issue spoken commands to navigate the voice mail menus. ASR is currently supported on EM voice processing systems only.

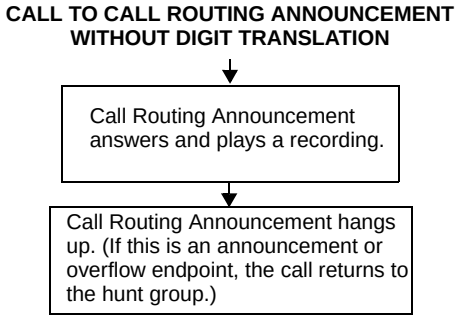
If ASR is enabled on a voice processing system, users are prompted to speak or press a digit on the dialpad to complete a voice mail task. If ASR is not enabled, users are only prompted to press a digit. When ASR is not enabled, users can still navigate the menus and perform tasks by pressing the appropriate dialpad digits when prompted.

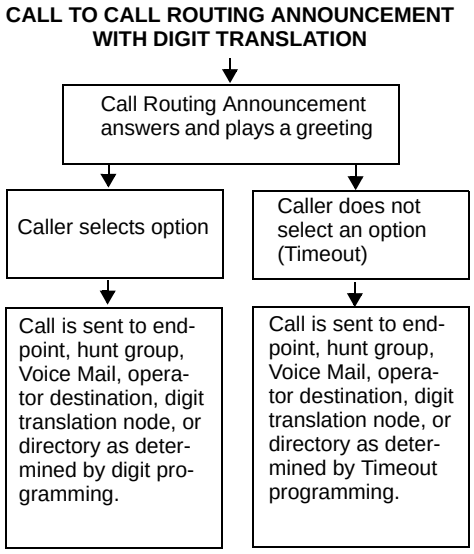
The following ASR guidelines are provided in the endpoint user guides. Instruct users to follow these guideline for best results when using ASR.

- When completing a mailbox-related task, either say the command each time or press the dialpad digits each time. Pressing the dialpad digits will temporarily disable ASR for the current call.
- Use the handset when issuing spoken commands. Your endpoint's speaker can pick up background noise and other sounds, which may cause the system to misinterpret a command.
- If your endpoint has a display, voice mail options are shown on the display. If you don't hear the command word when the prompt is announced, look at the display for the appropriate voice command.
- When you use the dialpad digits to complete a task, you are sometimes prompted to press # to indicate to the system that you have finished entering digits. It is not necessary to say "Pound" when using ASR. The silence that follows your voice command replaces the # digit.
- While you are recording a message, ASR is temporarily disabled, therefore you cannot issue spoken commands to access recording options like pause and erase. If you attempt to issue a spoken command while you are recording, your recording will include the command you issued. To access recording options, you must press the appropriate dialpad digits.
- You cannot use ASR to set up your e-mail password. For security reasons, you must enter your e-mail password characters by pressing the appropriate dialpad digits. Entering passwords this way prevents others from overhearing your password.
- If the system cannot interpret your voice commands for three consecutive attempts, ASR is temporarily disabled by the system for the current call. You can still complete tasks using the dialpad digits; however, you will no longer be prompted to say a command.
- You can temporarily disable ASR for the current call by selecting option eight from the main menu.

Call Routing Announcement

The Call Routing Announcement application can be used as a simple playback device that plays a message and then hangs up to disconnect the call. This is especially useful for programming hunt group announcement and overflow endpoints. Or, the Call Routing Announcement application can use digit translation which allows the caller to press a single digit for access to a endpoint, hunt group, or mailbox.


CALL TO CALL ROUTING ANNOUNCEMENT WITHOUT DIGIT TRANSLATION
Call Routing Announcement answers and plays a recording.
Call Routing Announcement hangs up. (If this is an announcement or overflow endpoint, the call returns to the hunt group.)


CALL TO CALL ROUTING ANNOUNCEMENT WITH DIGIT TRANSLATION
Call Routing Announcement answers and plays a greeting
Caller selects option
Caller does not select an option (Timeout)
Call is sent to endpoint, hunt group, Voice Mail, operator destination, digit translation node, or directory as determined by digit programming.
Call is sent to endpoint, hunt group, Voice Mail, operator destination, digit translation node, or directory as determined by Timeout programming.

When a Call Routing Announcement application is used as a hunt group announcement or overflow endpoint, calls to the application automatically stop circulating through the hunt group if the caller selects a valid digit translation option. This allows the application to send the call to other endpoints without the call being "pulled back" into the hunt group when a hunt group endpoint becomes available and answers the call. However, if the caller does not dial a valid digit translation option, the call will be pulled back if a hunt group member answers.

Automated Attendant Custom Audiotex Recordings

When accessed, the Call Routing Announcement application will play a custom audiotex recording and then hang up.

Call routing announcements are recorded using the Voice Mail Administrator's mailbox as described on page 52. Each announcement is assigned to use a "custom greeting" number in Database Programming.

Recordings for fax documents should include all dialing instructions. The recording should state whether documents can be selected by number and/or list all options. If fax delivery times are set to specific days or times, the recording should also include this information.

Call Screening

Calls transferred from the Automated Attendant or a Call Routing Announcement application can be screened, announced, or unannounced. Separate programming flags determine the methods used for transferring calls to endpoints with mailboxes, endpoints with extension IDs, and extensions without mailboxes or IDs. (See page 224 for details.)

Digit Translation

Digit translation allows callers to dial a single digit to access a designated extension number, mailbox, or hunt group. Up to 12 digit translation storage locations (#, *, 0–9) are available for each Call Routing Announcement application. To use digit translation, the Call Routing Announcement application must have special programming.

After the application is created and programmed, the Voice Mail Administrator's mailbox is used to make a custom audiotex recording that explains the options to callers, as described on page 52. The custom audiotex recording is then assigned to the Call Routing Announcement application. A caller who listens to the Call Routing Announcement recording can dial the single-digit location number to reach the designated destination. For example, if the hunt group extension for a customer support group is programmed for digit 3, the recording should say something like, "For customer support, press 3."

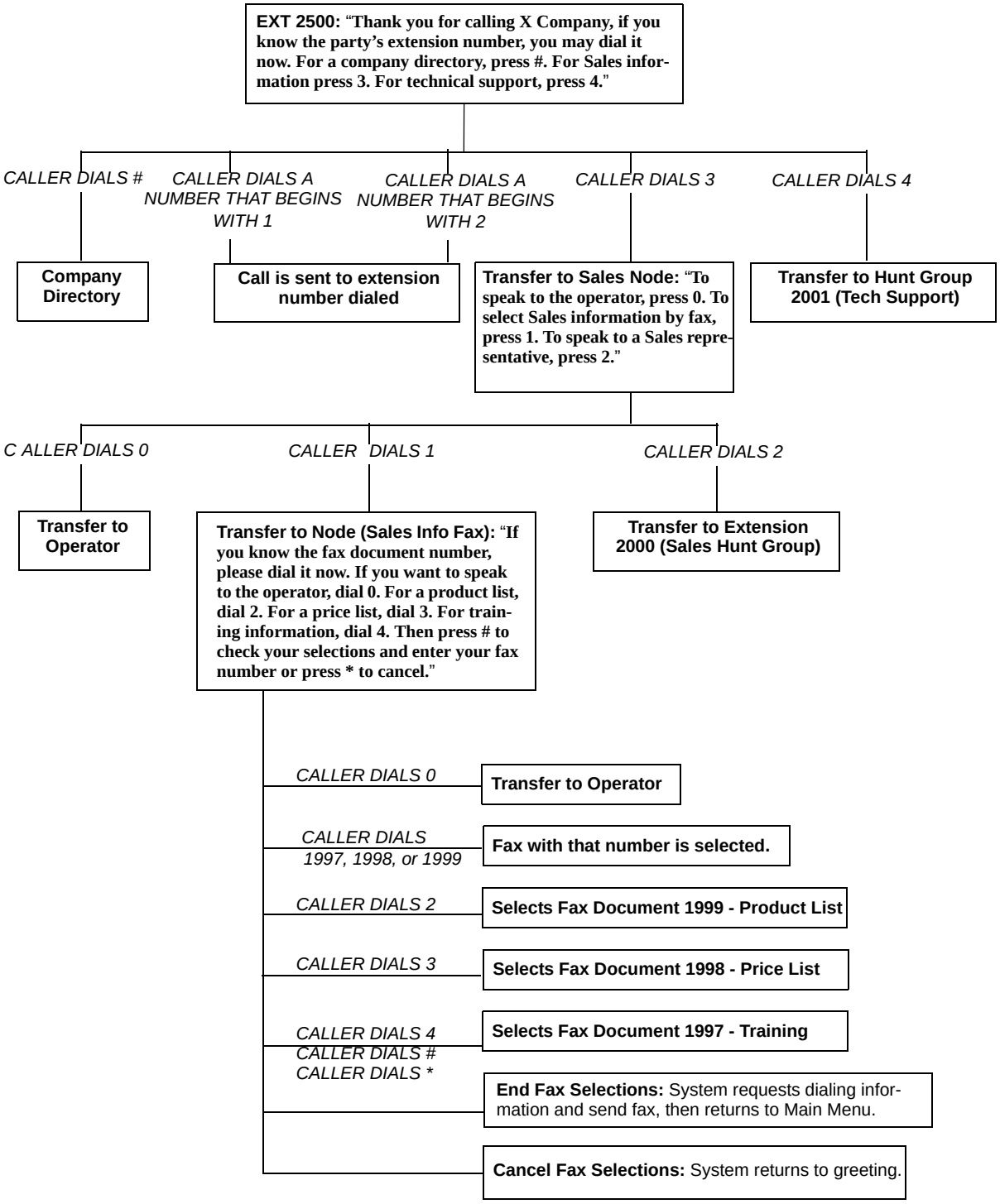
The system provides a choice between Primary and Secondary Language prompts and displays. The available languages are American English, British English, Spanish, and Japanese. The system selects the language to use for each call, as determined by the trunk, endpoint, and voice processing system programming. When using a Call Routing Announcement application with digit translation, the individual voice processing system applications assigned to the digits can be programmed to override the device language and provide prompts in one language only. Using this method, you can program a Call Routing Announcement tree that offers callers a choice between languages. See page 141 for more information.

Digit Translation Nodes

A "digit translation node" is a digit translation destination that allows further digit translation options. Unlike extension and mailbox destinations, a digit translation node does not move the call to a specific location. Instead, it offers additional dialing options. A digit translation node can use any of the Actions, including transfers to other digit translation nodes.

The use of digit translation nodes allows the programmer to create a Call Routing Announcement with several layers to form a digit translation "tree." The tree can be made up of digits with destinations and/or digit translation nodes with additional translations. An example of a Call Routing Announcement application with a multi-layered tree is shown on the next page.

Figure 15. *Sample Call Routing Announcement Tree*


EXT 2500: "Thank you for calling X Company, if you know the party's extension number, you may dial it now. For a company directory, press #. For Sales information press 3. For technical support, press 4."
CALLER DIALS #
CALLER DIALS A NUMBER THAT BEGINS WITH 1
CALLER DIALS A NUMBER THAT BEGINS WITH 2
CALLER DIALS 3
CALLER DIALS 4
Company Directory
Call is sent to extension number dialed
Transfer to Sales Node: "To speak to the operator, press 0. To select Sales information by fax, press 1. To speak to a Sales representative, press 2."
Transfer to Hunt Group 2001 (Tech Support)
C ALLER DIALS 0
CALLER DIALS 1
CALLER DIALS 2
Transfer to Operator
Transfer to Node (Sales Info Fax): "If you know the fax document number, please dial it now. If you want to speak to the operator, dial 0. For a product list, dial 2. For a price list, dial 3. For training information, dial 4. Then press # to check your selections and enter your fax number or press * to cancel."
Transfer to Extension 2000 (Sales Hunt Group)
CALLER DIALS 0
Transfer to Operator
CALLER DIALS 1997, 1998, or 1999
Fax with that number is selected.
CALLER DIALS 2
Selects Fax Document 1999 - Product List
CALLER DIALS 3
Selects Fax Document 1998 - Price List
CALLER DIALS 4
Selects Fax Document 1997 - Training
CALLER DIALS #
CALLER DIALS *
End Fax Selections: System requests dialing information and send fax, then returns to Main Menu.
Cancel Fax Selections: System returns to greeting.

Directories

The following two types of voice processing system directories can be enabled (or disabled) in the system:

- **The Voice Mailbox Directory** is a list of mailbox subscribers, their recorded names, and mailbox numbers.
- **The Automated Attendant Directory,** provided to all Auto Attendant callers, is a list of all mailbox subscribers and extension ID owners and their recorded names.

The directories can be selected in the following ways:

- **From the Voice Mail or Automated Attendant main menu:** Say "Directory" if Automatic Speech Recognition is enabled.
- **From the Voice Mail or Automated Attendant main menu:** Say "Directory" or press the # button.
- **Using a Call Routing Announcement application:** Press the Digit Translation digit designated for directory access. (See page 229 for a detailed explanation of digit translation.)
- **As a Voice Mail subscriber:** Subscribers can access the directory by saying "Directory" or by pressing # whenever they are prompted to enter a mailbox number.

> **NOTE** Non-subscribers can only use ASR to search the directories if ASR has been enabled for the directory. Subscribers can only use ASR to search the directories if ASR is enabled for the directory *and* the mailbox.

If a directory is disabled or empty because no names are recorded for any of the system's mailboxes and extension IDs, callers will not hear the prompt that allows access to the directory. However, if the caller does try to access the directory if it is disabled, he or she will be instructed that the selection is invalid and returned to the initial instructions.

Recorded names are added to the directories when the owner of the mailbox or extension ID has initialized the name. If the mailbox or ID is not initialized, the directory will include only the mailbox number or extension ID number. (Group Lists are not included in either type of directory.)

The caller can use ASR (if enabled) or press dialpad buttons to enter the name. The application then plays the closest matching directory name that corresponds to the digits entered by a caller. Once the name has been played, the system will return a menu of options, including the following:

- Listening to the previous or next name in the directory
- Listening to additional information (This option is not available if the mailbox or extension ID number has been classified in the database as a "Private" number.)
- Spelling a new name
- Toggling from a last to first name search mode
- Accepting the name

Locating a Name

There are two methods used for entering a name when you spell the name using your endpoint's dialpad digits: Quick Spell and Exact Spell. Outside callers and endpoint users with non-display endpoints and single line endpoints use Quick Spell. Display endpoints use the Exact Spell method.

- Quick Spell callers press a single digit (or button) from their endpoint dialpad for each letter or character entered. For example, dialpad button 2 shows ABC, button 3 shows DEF, etc. To enter JONES, you would press 5 6 6 3 7. Some characters are not shown on the buttons: for "Q" press 7, for "Z" press 9, for punctuation marks press the 1 button.
- Exact Spell callers press the dialpad buttons to enter the name. The number of times a button is pressed determines which character is entered, as shown on the chart below. When adjoining characters are located under the same button, press FWD once to advance to the next character. For example, 5666 FWD 66337777 would enter "JONES."

Table 37. *Quick Spell and Exact Spell Alphanumeric Dialpad Entries*

	NUMBER OF TIMES BUTTON IS PRESSED				
BUTTON	**1**	**2**	**3**	**4**	**5**
1	-	&	(	)	1
2	A	B	C	'	2
3	D	E	F	!	3
4	G	H	I	*	4
5	J	K	L	#	5
6	M	N	O	Ñ	6
7	P	Q	R	S	7
8	T	U	V	?	8
9	W	X	Y	Z	9
0	@	:	.	,	0

After the digits have been entered, the caller presses # to begin the search. The Automated Attendant application plays the name that most closely matches the digit(s) that were entered. If # is pressed without entering any digits, the caller will hear the first name in the directory.

If a user presses 0 at any time while spelling a name, the system will play a helpful prompt instructing the caller how to enter a name. (Display endpoint users will receive Exact Spell instructions; all other users will hear Quick Spell instructions.)

Changing the First/Last Name Search

Each directory can be programmed to be organized by last name or by first name. Callers accessing a directory receive system voice prompts that ask them to enter the first or last name of the person for whom they want to leave a message.

Listening to the Next/Previous Name

After a name has been played, the caller can listen to the previous name in the directory by pressing 1. To listen to the next name, the caller can press 3.

The directory lists are circular. That is, when the end of the list is reached, the next name played will be the first name in the directory. Or, if the caller scrolls to the beginning of the list, the "previous" name played will be the last name in the directory.

Accepting a Name

When the caller is using the Voice Mail feature and accepts a name, the caller is transferred to the corresponding mailbox. Then the caller will hear either the subscriber's recorded greeting, recorded directory name, or, if no recording has been made, the "mailbox number XXX is not available" prompt. The caller can then record a message.

If the caller is using the Automated Attendant feature, and accepts the name, the caller is transferred to the selected destination (endpoint or mailbox) if it is available. If an endpoint extension is dialed and the destination is not available, the caller is sent to the associated mailbox, if one exists.

Requesting Additional Information

After a name is selected from the directory, the caller has the option of requesting additional information. When requested, the mailbox number, extension number, and name are played (if they have not been disallowed).

Individual mailboxes and extension IDs can be programmed as "Private" in Database Programming. A Private number is included in the directory and can be dialed by a caller who knows the number, but the associated mailbox and extension number information are not available to the caller; only the name is played.

Mailboxes and extension IDs can also be programmed as "Unlisted." That means that the number will not be included in the directory, but can be dialed if the caller knows the extension number.

Searching the Voice Mail Directory

To search the voice mail directory by saying the name:

If Automatic Speech Recognition (ASR) is enabled, you are given the option to search for a name in the directory by saying it. When prompted, say the full name (most accurate results), first name, or last name of the person you are searching for. The system searches the voice mail directory and returns a list of names. If ASR is not enabled on your voice mail system, you can use the dialpad buttons to search the directory (see below).

NOTE If one to nine matches are located, you can browse the list of returned names and select the correct name from the list. If the system locates 10 or more matches, you are prompted to say "First" or "Last" to limit your search to a first or last name.

To search the directory using the endpoint's dialpad digits:

1. Dial the Voice Mail access number. You hear the recorded system greeting.
2. Say "Directory" or press # for Directory Services.
3. The buttons on your endpoint are labeled with letters. Use Quick Spell (non-display endpoint or single line) or Exact Spell (display endpoint) to enter the desired name, as described on page 231, then press #. (If you want to exit from the directory without selecting a name, press * or hang up.)
4. The Voice Mail application will play the selected name. Do one of the following:
   - Say "Accept" or press # to accept a name.
   - Say "Previous" or press 1 to hear the previous name in the directory.
   - Say "More" or press 2 to hear additional information for the selected name (if allowed).
   - Say "Next" or press 3 to hear the next name in the directory.
   - Say "New" or press 4 and say or spell a new name to search for a different name.
   - Say "Cancel" or press * to exit the directory.

EM Directories

Directories contain a list of extensions or mailboxes and the names programmed for them. The following directories can be enabled (or disabled) in the system:

- **The Mailbox Directory** is a list of mailbox subscribers, their recorded names, and mailbox numbers.
- **The Automated Attendant Directory** is a list of all mailbox subscribers and extension ID owners and their recorded names.

NOTE Group Lists are not included in either type of directory.

The directory function is accessible to all incoming callers and voice mail subscribers. The directory is built automatically through the voice mail subscribers and extensions. Recorded names are added to the directories when the mailbox or extension ID owner has initialized the name. The directory also includes extensions that do not have a voice mailbox, if the extension is programmed with an Extension ID. If the mailbox or ID is not initialized, the directory will include only the mailbox number or extension ID number.

The ASR feature allows callers to search the directory and make calls to endpoints more efficiently. If ASR is disabled, callers must use their dialpad to spell the name of the endpoint user, department, or group that they were searching for. When ASR is enabled, callers can search the directory by saying the name of the endpoint user and the directory will search and locate a match.

Private Numbers: Individual mailboxes and extension IDs can be programmed as “Private” in DB Studio. A Private number is included in the directory and can be by a caller who knows the number, but the associated mailbox and extension number information are not available to the caller; only the name is played.

Unlisted Numbers: Mailboxes and extension IDs can also be programmed as “Unlisted.” That means that the number will not be included in the directory but can be if the caller knows the extension number.

Directory Access: Callers can access the directory in the following ways:

- From the voice mail or Automated Attendant main menu:
  - — *EITHER*, say “Directory”
  - — *OR*, press #
  - — *OR*, press the **DIRECTORY** menu button
- From a Call Routing Announcement application, say or press the digit assigned through Digit Translation for directory access. (See page 229 for a detailed explanation of digit translation.)

If a directory is disabled or empty because no names are recorded for any of the system’s mailboxes and extension IDs, callers will not hear the prompt that allows access to the directory. If the caller presses # or a Directory menu button anyway, the prompts states that the selection is invalid and the initial instructions are repeated.

Searches: With the voice mail directory, subscribers and non-subscribers can use speech recognition (if ASR is enabled) or dialpad digits (if ASR is disabled) to search for names in the directory. Subscriber names are automatically added to the directory when the user’s mailbox is initialized. ASR may not be able to locate names that are pronounced differently than they are spelled. For these types of names, use the alternate search method of spelling the name using the endpoint dialpad digits (see Table 38 on page 236).

A caller begins a directory search by selecting the directory option from the menu. The caller is prompted to say or spell the last name of the mailbox user they would like to locate. When the caller searches for a name, the directory locates all matches (first and last names) for the name. For example, if the caller searches for the name John, the system locates all of the subscribers in the system with the first or last name of John. The list of matches might include the names John Smith, John Jones, John Nielson, David John, Robert John, etc.

When one to 10 matches are located, the caller can browse the list of returned names by selecting the Previous (say "Previous" or press 1) and Next (say "Next" or press 3) options. The directory lists are circular. That is, when the end of the list is reached, the next name played will be the first name in the directory. When the correct name is played the caller says "Yes" or presses # to select it. If the caller is a subscriber using a display endpoint, the names matching the search are displayed, and the caller can select a name by pressing the corresponding menu button.

If the system locates more than 10 matches, the caller can either browse the list using the options mentioned above, or filter the list by responding to the filtering questions generated by the system. To narrow the search, the system prompts the caller to indicate whether the name is the first or last name. After the caller has responded, the system returns a list of names that corresponds to the caller's filter parameters. If the system cannot locate an exact match, it returns the closest match found.

Additional Information: After the caller accepts a name from the directory, he or she has the option of requesting additional information by saying "More" or by pressing 2. When requested, the system plays the mailbox number, extension number, and name (if they have not been disallowed).

To perform a directory search:

1. Dial the voice mail number.
2. Say "Directory" or press #.
3. Say the last name of the person you are searching for or press the appropriate dialpad buttons to spell the name (see Table 38 on page 236).

   If 10 or fewer matches are located, you can access and browse the list immediately (see step 4.).

   If the list contains more than 10 matches, you have the option to browse or filter the list. (skip step 4., and see step 5.).
4. *If 10 or fewer matches are located*, you have the following options:
   - Say "Yes" or press # to accept the name that is played.
   - Say "Previous" or press 1 to browse to the previous name in the list.
   - Say "More" or press 2 to hear more information about the subscriber.
   - Say "Next" or press 3 to browse to the next name in the list.
   - Say "New" or press 4 to search for a new name.
   - Say "Cancel" or press * to exit the directory.

5. *If more than 10 matches are located,* the system prompts you to browse or filter the list. Do one of the following:

   - Say "Yes" or press 1 to browse the list. (See step 4. for options).
   - Say "No" or press 2 to select the filter option and then respond to one of the following filter questions:
     - The system begins by asking you if the name you are searching for is the last name. If it is, say "Yes," press 1, say the last name, or spell the last name.
     - If you did not respond to the first question, the system asks if the name you are searching for is the first name. If it is, say "Yes," press 1, say the first name, or spell the first name.

   After the list has been filtered by first or last name, a smaller list of names is returned. You can then browse the list and select the appropriate name (see step 4.).

To use the dialpad buttons to spell a name: When prompted, press the appropriate dialpad buttons to spell the name. The number of times a button is pressed determines which character is entered, as shown in the digit map table below. When adjoining characters are under the same button, press FWD to advance to the next character. For example, 5666 FWD 66337777 enters "Jones."

Table 38. *Dialpad Alphanumeric Coding Layout*

	NUMBER OF TIMES BUTTON IS PRESSED				
BUTTON	**1**	**2**	**3**	**4**	**5**
1	-	&	(	)	1
2	A	B	C	‘	2
3	D	E	F	!	3
4	G	H	I	*	4
5	J	K	L	#	5
6	M	N	O	ñ	6
7	P	Q	R	S	7
8	T	U	V	?	8
9	W	X	Y	Z	9
0	@	:	.	,	0

Outside caller search method: Outside callers must use the "Quick Spell" method of searching the directory, if ASR is not enabled. When an outside caller accesses the voice mail directory, he or she is prompted to press the digits on the dialpad that correspond to the name they are searching for. For example, dialpad button 2 corresponds to ABC, button 3 corresponds to DEF, etc. To enter the name "Jones," the caller would press 5 6 6 3 7. The system finds the closest match based on the caller's entry.

NOTE: Press 7 for "Q," 9 for "Z," and 1 for punctuation marks.

When the caller accepts the directory name from voice mail, the caller is transferred to the corresponding mailbox. After the transfer the caller either hears the subscriber's recorded greeting, their recorded directory name, or, if no recording has been made, the "mailbox number XXX is not available" prompt. The caller can then record a message.

When the caller accepts the directory name from the Automated Attendant, the caller is transferred to the selected destination (endpoint or mailbox) if it is available. If the destination is not available, the caller is transferred to the associated mailbox, if one exists.

E-mail Reader

The EM voice processing system supports E-mail Reader which, if enabled, provides access to voice mail, e-mail, and fax messages that are located in an advanced mailbox. E-mail Reader uses Text-to-Speech (TTS) capabilities to convert the text in an e-mail message to a .wav file.

When the user accesses an e-mail message, E-Mail Reader announces the e-mail according to the envelope options that the user set. Then, after the envelope is played, E-mail Reader reads the text in the body of the message. Additional options for e-mail messages include reply, forward, save, and delete. E-mail Reader is supported only on EM voice processing systems.

When the user accesses a fax message, E-mail Reader announces the fax envelope according to the envelope options that the user set up. Because a fax message is received by the e-mail server as an attachment to an e-mail message in the form of a **`.tif`** file, E-mail Reader cannot read the text in the body of the fax. To view a fax and read it, users must access it from their e-mail account. Fax options include saving, deleting, and forwarding to another fax machine.

For detailed information about using standard voice mailboxes and advanced mailboxes with E-mail Reader capabilities, see the appropriate endpoint user guide.

Fax-On-Demand

The Fax-On-Demand feature provides fax services to callers. It is a specially programmed Call Routing Announcement application that uses digit translation to allow callers to select the documents they want to have faxed to them.

With Fax-On-Demand, callers can use a DTMF endpoint to request one or more documents from the company's fax library, the library that is also used in the Unified Messaging faxing feature. When the request is completed, the voice processing system places a call to the caller's fax machine to deliver the requested documents.

The Fax-On-Demand process is shown in the following steps:

1. The caller reaches the Call Routing Announcement application either through direct ring-in or transfer.
2. After listening to the introductory recording, the caller selects a document by entering a document number or using digit translation, depending on digit translation node programming. If the document is selected by number, the system will ask the caller to verify the entry by pressing #. If the number is invalid, the system alerts the caller and returns to the introductory recording.
3. The system checks the availability of the document, and one of the following occurs:
   - *If the document is available,* the system tells the caller how many documents have been selected and how many more documents can be requested (as determined by the Maximum Selections Allowed value in the database). It then returns to the recording to allow the caller to select more documents or end the selection process.
   - *If the document has been deleted or is being updated,* the caller is told that the document is unavailable and returns to the recording.
4. If desired, the caller selects additional documents, and the system checks for their availability as described above. If the maximum number of allowed documents has been reached, the system informs the caller and gives the option of returning to the greeting

or ending the selection process. If a caller selects the same document more than once, the system informs the caller of the error and allows another selection.

5. If desired, the caller can cancel the document selections at this point by pressing the Cancel Fax Selections digit (usually *). However, once the next steps are completed, the faxes will be delivered.
6. When the caller ends the selection process by pressing the End Fax Selections digit (usually #), or reaches the allowed maximum number of documents, the system requests fax dialing information from the caller.
7. The caller enters and verifies his or her extension number (to be printed on the cover sheet) and the caller's fax machine phone number.
8. The system checks the entered number, and one of the following occurs:
   - *If the number is valid,* the system tells the caller when the document will be delivered (this depends on the programmed fax delivery times in the voice processing system database) and returns to the recording.
   - *If the number cannot be dialed by the Message Notification/Retrieval application due to toll restrictions,* the system tells the caller that the number cannot be dialed and asks for a new number.
   - *If the caller enters an invalid number,* the system tells the caller the number is invalid and asks for a new number.
9. The caller hangs up or returns to step 2 to select more documents. (If more documents are selected and canceled, the documents that were selected and accepted previously will still be sent. Each time the caller accepts the documents and enters the dialing information, the documents are prepared for transmittal. They cannot be canceled after that point.)
10. The Message Notification/Retrieval application places a call to the caller's fax machine as soon as a fax port is available, unless one of the following occurs:
    - *If the fax was requested outside of the programmed fax delivery times,* the system will wait until the Fax Delivery Start Time on an allowed day of the week before it attempts to send the document. The Fax Delivery Start and Stop times determine when faxes can be sent. Start and stop times can be set to any time period, up to 24 hours. The programmer can also determine which days of the week faxes will be sent.
    - *If other calls are going out and the programmed Maximum Number of Outgoing Calls has been met,* the system waits for an available outgoing call to send the fax.
    - *If a fax port or trunk is not available or if a requested document is not available,* the system delays delivery until the resource or document is available.
    - *If a requested document has been deleted,* the system will complete the delivery, but will indicate on the cover sheet that the document is no longer available.
    - *If a fax delivery fails after one or more pages have been transmitted,* the system remembers which pages were not sent and tries again to send only those pages. For example, if the transmission failed in the middle of page 3 of 5, the system would attempt to send only pages 3, 4, and 5 on the retry. The cover sheet on the retry will say, "This fax is the continuation of..." and the description for the fax will include "continued" in the title.

Documents are stored in the fax library using the System Administrator's mailbox. To do so, a fax machine places a call to the System Administrator's mailbox and sends the document. (See page 50 for instructions.)

Fax-On-Demand transmits a cover sheet with each faxed document that includes the recipient's extension number, your company name (as programmed in the database), the date, the number of pages to be sent, and a list of included documents. If you want, you can store a company

logo to be used on the cover sheet. The logo can be up to 5.5 inches high; if it is larger, the system automatically cuts it off at 5.5 inches. The logo document is stored, like other fax documents, using the System Administrator mailbox.

If you have several fax documents, you may want to create and store a "catalog" document that callers can request before continuing their selections. For example, the catalog can include the document number, title, description of the contents, number of pages, and last revision date for each document.

Fax documents can be saved and restored using the Voice Processing Save And Restore database program. The system Save And Restore operation has no effect on fax documents. However, if the system database is defaulted, all fax documents are deleted.

The digit translation node used for fax document selection should have a greeting that explains how to select documents. For example, it can say something like, "Welcome to Fax-On-Demand. For a product list, press 1. For a price list, press 2. When you have made your selections, press # to continue. Or, to cancel your selections, press *." Or, you can use a series of digit translation nodes that break the document selection into categories and/or allow callers to dial individual document numbers. If fax delivery times are set to specific days or times, the introductory recording should also include this information.

Record-A-Call

NOTE The Record-A-Call feature is required to use Record-A-Call.

If the voice processing system has a Record-A-Call application, the users can enter a feature code to record ongoing calls in their designated Record-A-Call mailboxes. Users can retrieve the recorded messages later, just as they would any other mailbox message.

The Record-A-Call mailbox records the call as a Voice Mail message. All parties will be included in the recording. If desired, the Record-A-Call mailbox can be programmed to play a message announcing that the Record-A-Call feature is in progress. There can be separate messages for day and night modes.

A Record-A-Call tone can be programmed to alert callers at the beginning of the recording. Also, it can be programmed to beep periodically throughout the recording.

There are two ways an endpoint can be programmed to use this feature:

- The endpoint can use its personal mailbox, or any other mailbox, as the assigned Record-A-Call mailbox. No other mailbox can be selected. (This is the default programming for all endpoints.)
- The endpoint can be programmed with a default mailbox, but with the option of selecting a different mailbox. If the user chooses to not enter a mailbox number, the system automatically selects the default mailbox.

When the requesting endpoint user hangs up, all parties are automatically disconnected. If all parties on the call hang up, except the requesting endpoint user, an intercom call will remain connected between the requesting endpoint and the Record-A-Call application. This allows the user to make additional comments before ending the recording.

When the endpoint user turns off Record-A-Call or ends the call being recorded, the voice processing system delivers the message to the mailbox. The endpoint associated with the mailbox will receive message waiting indications as usual. For message retrieval instructions, refer to the appropriate Inter-Tel endpoint user guide.

The service technician can set a maximum length for Record-A-Call messages. The Record-A-Call Maximum Message Length timer can be set at 0–600 minutes. A 0 setting allows messages of any length, limited only be the available disk space. The default is 30 minutes.

In a network setting, the Record-A-Call destination does not have to be on the same node as the endpoint, but the voice processing system must have a mailbox for that endpoint.

For more information on using the Record-A-Call feature, refer to page 173.

Scheduled Time-Based Application Routing (STAR)

Scheduled Time-based Application Routing (STAR) allows you to have applications with alternate greetings and/or different programming set up for holidays, weekends, and other scheduled events.

A STAR application is basically a “routing table” for voice processing system applications. When a direct ring-in call (from a trunk group or call routing table) rings in to a STAR application, it sends the call to another application, according to its programmed schedule. The caller will not be aware of this transfer, but will hear the programmed day or night greeting for the destination application. (The STAR application itself does not play a greeting.)

STAR can be used with any type of application except Auto Attendant Recall and Record-A-Call. You can even send calls from one STAR application to another, thereby “chaining” the applications to increase the number of available schedules.

A STAR application can contain up to 20 scheduling entries with the following fields:

- **Application:** This is the application (call routing announcement, Automated Attendant, etc.) that is used when the scheduling information applies to the incoming call.
- **Start/Stop Date:** If the schedule is going to be active on a single day or for a period of days, it will have Start and Stop Dates. (To have the schedule active on only one day, the Start and Stop Dates can be the same day.)
- **Days of the Week**: The schedule can be used on specific days of the week.
- **Specific Times or Day/Night Mode:** The schedule can be set to be active for a specific period of time on the selected day(s). Or, it can be set to be active in day or night mode.

The following chart shows several samples of STAR entries. Note that there are two entries for Labor Day and Memorial Day, and that Christmas Day and Christmas Holiday overlap.

Table 39. *STAR Programming Entries*

ENTRY	DESCRIPTION	DATE	DAY	TIME INTERVAL	DAY/NIGHT	APPLICATION
1	Labor Day	Sep 1		10:00am-2:00pm		2600
2	Labor Day	Sep 1			Both	2601
3	Memorial Day	May 30		8:00am-5:00pm		2605
4	Memorial Day	May 30		5:00pm-8:00am		2606
5	Christmas Day	Dec 25			Both	2607
6	Christmas Holiday	Dec 24 - Jan 2			Both	2608
7	Weekends		Sat, Sun		Both	2612
8	Lunch Break		M - F	11:00am- 1:00pm		2613
9	Night Shift		M - F		Night	2614
10	Day Shift		M - F		Day	2615

The first entry in the table is checked first, and so on, until a match is found. So it is important that you program the applications in the correct order.

For example:

- The Labor Day entry, with a specific time, comes before the Day/Night entry so that a different message is played from 10:00 to 2:00 only.

- The early time intervals come before the later intervals on Memorial Day.
- Dec. 25 comes before the range of dates Dec. 24–Jan. 4 so that the special holiday message will be played on that day only.

Once a match is found, the application corresponding to the matched entry is invoked. If no match is found, the application programmed in the "Default Application" field is used.

When programming the days and times, be careful not to overlap. For example, if you place a date entry for Dec. 25 after a day of the week entry for Monday, and Christmas falls on a Monday, the "Monday" application will be selected instead of the "Dec. 25" application.

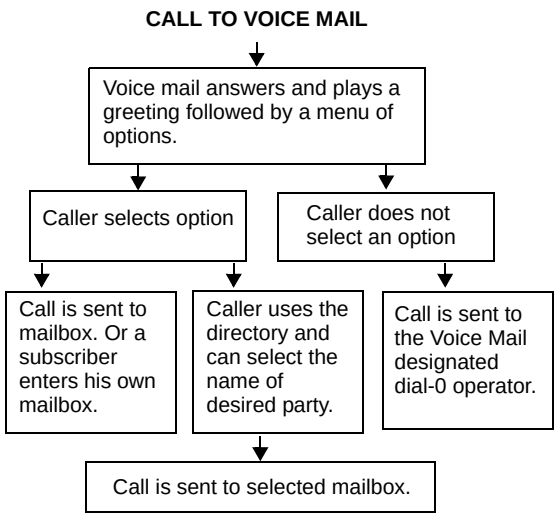
Voice Mail

The Voice Mail feature allows callers to send and receive recorded messages from any endpoint or DTMF endpoint. (Dial pulse signaling is not recognized by the voice processing system. Callers using dial pulse endpoints will be routed to the Voice Mail application's Dial-0 Destination for assistance.)

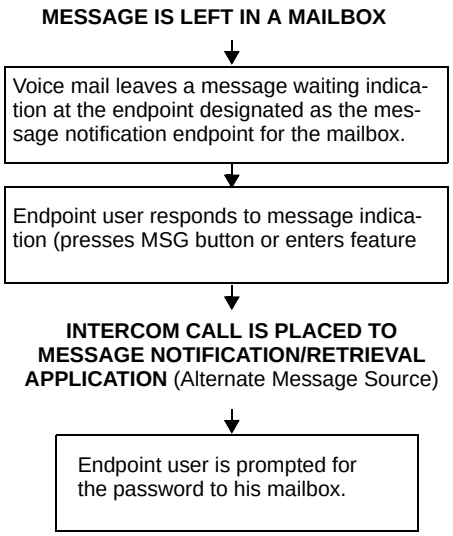
Voice Mail and Message Notification/Retrieval Applications

Two types of applications are combined to provide the Voice Mail feature: Voice Mail and Message Notification/Retrieval.

- **Voice Mail:** This application handles all calls that are directed to Voice Mail (other than the Message Notification/Retrieval application) placed by subscribers and non-subscribers. Callers will hear the main company greeting, followed by a menu of available options. Endpoints can forward or transfer calls directly to their mailbox using this application's extension number. This application can also be the message center for the subscribers' endpoints.


CALL TO VOICE MAIL
Voice mail answers and plays a greeting followed by a menu of options.
Caller selects option
Caller does not select an option
Call is sent to mailbox. Or a subscriber enters his own mailbox.
Caller uses the directory and can select the name of desired party.
Call is sent to the Voice Mail designated dial-0 operator.
Call is sent to selected mailbox.

- **Message Notification/Retrieval:** Only one Message Notification/Retrieval application may be created for the system. When endpoint users respond to message indications left by Voice Mail, they reach the Message notification/Retrieval application and are prompted only for their password.


MESSAGE IS LEFT IN A MAILBOX
Voice mail leaves a message waiting indication at the endpoint designated as the message notification endpoint for the mailbox.
Endpoint user responds to message indication (presses MSG button or enters feature
INTERCOM CALL IS PLACED TO MESSAGE NOTIFICATION/RETRIEVAL APPLICATION (Alternate Message Source)
Endpoint user is prompted for the password to his mailbox.

Endpoint users and outside callers gain access to the Voice Mail application in the following ways:

- By dialing the phone number or extension number assigned to the Voice Mail application
- By being transferred to Voice Mail by Automated Attendant
- By being forwarded to the Voice Mail when a called endpoint is unavailable (via the Call Forwarding or System Forwarding features)
- By responding to Message Waiting indications

Callers will hear the Voice Mail company greeting and recorded instructions that tell them what to do next. Users simply listen to the prompts and press the dialpad button that corresponds to the desired choice. If the user does not respond immediately, a second set of prompts is played.

Most prompts are interruptible, and users can press the desired button at any time during the prompt. The prompt will then stop and the system will act on the requested choice.

Mailboxes

A mailbox is a storage location on the voice processing system PC hard disk that stores all messages that have been directed to it. (The hard disk also stores prompts, greetings, and special programming.) Each "Subscriber" (member of the voice message system) is assigned a unique mailbox number. At system default, the passwords are the same as the mailbox numbers. (For example, the default password for mailbox 1001 is "1001.")

There are three types of mailboxes on the Voice Mail system: Standard, Receive-Only and System Administrator. There can also be Extension IDs which are endpoints that do not have mailboxes, but that are included in the recorded directory.

- The Standard mailbox owner receives all of the available subscriber options as authorized through database programming. Standard mailbox features include:
  - Listening to new messages
  - Recording and sending messages
  - Deleting and restoring messages
  - Saving messages
  - Personal options (greeting, password, etc.)
  - Remote messaging (if authorized through database programming)
- A Receive-Only mailbox type may only listen to new messages, save, delete, or recover them and access personal options. This type of mailbox is restricted from recording and sending messages and has no access to remote messaging.

- There can be only one Voice Mail Administrator. The Voice Mail Administrator has all of the options a Standard mailbox subscriber has, plus these features:
  - — Record and send broadcast messages to all subscribers of the Voice Mail system
  - — Provide mailbox and group list maintenance
  - — Record and select Custom Audiotex Recordings
- Extension IDs are used in conjunction with transferring calls through the Automated Attendant or using the Extension Directory. The extension ID allows callers to be transferred to endpoint extensions which do not have mailboxes and allows the endpoint user to record a directory name and set up a password.

Calls transferred from the Automated Attendant or a Call Routing Announcement application to a endpoint with a mailbox can be screened, announced, or unannounced. Separate programming flags determine the methods used for transferring calls to endpoints with mailboxes.

During database programming, each mailbox is assigned a dial-0 operator destination. When a caller presses **0** while listening to the mailbox's personal greeting or recording instructions, or while recording a non-subscriber message, the operator destination is called. The operator can be one of the following types:

- **Mailbox:** If the operator is a mailbox, the caller will hear the operator destination's personal greeting after pressing **0**.
- **Endpoint extension number:** If the operator destination is an extension number, the caller will hear the Automated Attendant transfer prompt while the call is placed to the extension number ("*Please hold while I transfer your call to...*"), unless it has been disabled at the mailbox. If the endpoint user does not answer, the caller will be asked if he wants to leave a message, if the operator's extension has an associated mailbox. If the caller chooses not to leave a message, the call returns to the main menu of the application being used (Call Routing Announcement, Voice Mail, or Automated Attendant).
- **Application extension number:** If the operator destination is an application's extension number, the call is transferred to that application's main menu.
- **Operator:** If the operator destination is set to "Operator," the caller will be transferred to the operator destination programmed in the voice processing system database.
- **None:** If the operator destination is set to "None," the **0** will be ignored.

Group Lists

Group lists are programmed in the database. They are lists of mailboxes that can be used by any Subscriber for sending messages to several mailboxes simultaneously. The information that is programmed for group lists include the following:

- Group list description
- Group list number
- Mailboxes included in the list

There can be up to 1000 group lists in the system and up to 1500 entries per group list.

Group Lists are not included in the Automated Attendant or Voice Mail directories.

Instructions for using group lists are provided in the appropriate endpoint user guides.

Message Notification to Endpoints

Each mailbox has a programmed Message Notification Endpoint. This is usually the extension number that matches the mailbox number (associated mailbox). However, a different number can be used for the mailbox's message notification endpoint (non-associated mailbox).

- **Associated:** When the extension number, message notification number, and mailbox number for an endpoint all match, that endpoint user can forward calls to Voice Mail and have the call go directly to the associated mailbox's personal greeting. (Even if other mailboxes use that extension number as their message notification extension.)
- **Non-Associated:** The extension number assigned as the Message Notification Endpoint for a non-associated endpoint is an extension number that does not match the mailbox number. (For example, a hunt group pilot number can have a mailbox, but the message notification must be sent to a specific endpoint so that a message lamp can be lit or message notification signal can be sent.) If an endpoint user's extension number does not match a mailbox number, and the endpoint user forwards calls to Voice Mail, the caller will hear the main Voice Mail greeting and must enter a mailbox number.

When a mailbox receives a message, the message notification endpoint is signaled. If it is an Inter-Tel endpoint, the MSG button is lit and the display shows that a message has been received. A single line endpoint will receive message waiting signals, if enabled system-wide.

Cascading Remote Message Notification

Remote Messaging is a subscriber feature that is enabled through database programming. Subscribers may program a series of specific phone numbers, a "cascade," for the Voice Mail system to call when new messages are received by their mailboxes. Refer to the appropriate user guides for instructions on using cascading remote message notification.

Primary and Alternate Notification

Each mailbox can have a Primary and/or an Alternate notification cascade of numbers. The notification numbers are programmed to be accessed during specific days and times.

The Voice Mail system monitors subscriber mailboxes continuously. During monitoring, if new messages have been received, the system will check to see if Primary notification is turned on. If it is, the system will check the day and time programming. If the current time is within the programmed notification day and time, the Voice Mail system will make the notification call(s) to the numbers in the Primary Notification cascade. If Primary Notification is turned off or if the day or time does not match, the Voice Mail system will immediately make the same check for Alternate Notification and possibly place calls to the numbers in the Alternate Notification cascade.

When the voice processing system makes a notification call, it moves through the appropriate notification cascade level by level as determined by the notification and retry programming described below. When the system reaches the last level in the cascade, it will return to level 1 and begin again, if necessary.

If the system is not able to place the call within the parameters of the programmed notification day and time (due to busy facilities or invalid programming), the mailbox will receive a message stating that notification could not be completed (the mailbox owner will hear the message next time he or she accesses the mailbox.)

The number of calls that the voice processing system can process simultaneously is determined by the Maximum Number of Outgoing Calls flag. It defaults to 2, but can be programmed to use all of the enabled voice processing system voice channels.

All Messages, Priority Only, and Each New Message Flags

When the mailbox is being programmed for remote notification, message notification can be set to place the notification call when any message is received or only when priority messages are received. (This defaults to "All Messages.") Another mailbox flag, called "Call For Each New Message," determines when the voice processing system will attempt to make the notification call when more than one message is waiting to be heard:

- If the Call For Each New Message flag is *enabled*, the voice processing system will attempt *immediate* notification each time a new message (or priority message, depending on the option selected) is received, regardless of the status of the applicable retry timer. If a retry is in progress, it will place the call to the number on the cascade table that would have received the retry call, as described below. (For example, if the voice processing system was on level 3 of a cascade, attempting retries, it will not start over again at level 1. It will place the call to level 3.)
- If the Call For Each New Message flag is *disabled*, new messages will not generate a remote notification attempt until the Subscriber has logged on and listened to the waiting message(s). (However, retry calls will be attempted if the applicable retry timer expires, as described below.)

Retry Call Attempts

The mailbox can be programmed to retry notification calls when it encounters a busy trunk or trunk group. Each cascade level can be programmed with a Number of Call Attempts value of 1–1000 calls.

If the mailbox user accesses the mailbox between the time the message is received and when remote notification is successful, the system will stop attempting remote notification. It is assumed that the mailbox user listened to the message when the mailbox was accessed. However, the **MSG** button at the endpoint will remain lit if there are any messages that have not been heard.

Each level also has a Number Called Busy timer and a Pager Notification Retry timer or Personal Number No Answer timer. These timers determine how long the voice processing system will wait before making the next notification attempt when messages are waiting to be heard (unless it is overridden by the Each New Message flag). These timers can be set to a value of 0–255 minutes. If set to 0, it retries the cascade level immediately, for as many attempts as allowed by the Number of Call Attempts field. If the message(s) has not been picked up by then, the system moves to the next cascade level. The default setting for the Pager Notification Retry timer is 20 minutes. The Number Called Busy and Personal Number No Answer timers default to 5 minutes.

NOTE	The 0-minute timer value should be used cautiously. If the system is forced to make several calls in quick succession, it will impair the voice processing system's ability to place other outgoing calls. It should be used primarily with cascades in which all of the members want to receive notification at approximately the same time. In this case, all levels except the last could be set to 0-minute retries with 1 allowed call attempt. However, the last level in the cascade should be programmed with a longer Pager Notification Retry timer so that the system does not continuously cycle through the cascade levels. (Continuous cycling is also prevented somewhat by a per-mailbox 15-call limit. Due to FCC regulations, the voice processing system can allow a mailbox to make only 15 calls in rapid succession without a 10 minute pause.)

Notification Numbers

Each cascade level has a programmed notification number that can be an extension number or an outside phone number.

When an outside phone number is used, the system will access an outgoing trunk using the code programmed for that level. The code contains a pre-programmed trunk access code and followed by an outgoing access termination feature code, if needed.

Notification calls to outside phone numbers can be sent to a pager or to a number where a person will answer (personal number).

- If the call goes to a pager, the system will dial the programmed Pager Dial String, then disconnect the call. The dial string should include any digits that the paging company requires when the call is answered, the pager LCD number, and the pager termination code, if needed. Also, if desired, the pager string can be programmed to show the number of the mailbox that placed the call and/or the number of waiting messages in the mailbox.
- If the call goes to a personal number, the system will play a prompt announcing that the call is from Voice Mail, play the directory name or mailbox number that originated the call, and play user instructions. The listener can then enter the mailbox number's password to gain access to the mailbox and hear the message. The listener has three chances to enter a correct password. If the system receives an incorrect password three times, the Voice Mail system will disconnect the call immediately, and the attempt is considered unsuccessful.

Subscriber Features

Before subscribers can use voice mail, they must set up their mailbox. Mailbox setup and configuration options include:

- Initializing a mailbox
- Setting up an e-mail password (if E-Mail Reader is enabled)
- Recording personal greetings
- Recording a directory name
- Changing a password
- Changing a message envelope
- Programming remote messaging
- Changing the call screening transfer method
- Programming a fax destination
- Changing the message search order

After the subscriber's mailbox is configured, mailbox tasks include the following:

- Accessing a mailbox
- Disabling and enabling ASR (if ASR is enabled)
- Accessing voice mail messages
- Accessing e-mail, and fax messages (if E-Mail Reader is enabled)
- Recording and sending voice messages
- Canceling unheard voice messages
- Recovering deleted messages

Instructions for all of the subscriber tasks are located in the endpoint user guides. In addition to instructions for the tasks listed on the previous page, endpoint user guides contain frequently-

asked questions, guidelines for using ASR, information about using E-Mail Reader, and flow-charts for the standard voice mailbox and the advanced mailbox.

Refer to the appropriate user guide for voice mail and mailbox information.

Table 40. *User Guides and Corresponding Part Numbers*

USER GUIDE	PART NUMBER
Model 8600 User Guide—Inter-Tel Protocol Mode	550.8115
Model 8620/8622 User Guide—Inter-Tel Protocol Mode	550.8119
Model 8662 User Guide—Inter-Tel Protocol Mode	550.8117
Model 8690 User Guide—Inter-Tel Protocol Mode	550.8116
Model 8690 User Guide—SIP Protocol Mode	550.8025
Model 8600/8620/8622/8662 Phone User Guide—SIP Protocol Mode	550.8024
Model 8660 User Guide	550.8113
Model 8601 User Guide	835.2737
Single Line User Guide	550.8107
Model 8664/8665 User Guide	935.4522
SIP Third-Party Endpoints User Guide	835.2604

Unified Messaging

The Unified Messaging (UM) feature links the voice processing system with e-mail and/or provides outgoing fax capabilities. The Voice Processing Unit (VPU) uses Unified Messaging version 2.2. The Enterprise Messaging (EM) voice processing system uses UM version 2.3. The following sections provide information on each version.

NOTE Unified Messaging is not supported in Basic Voice Mail (BVM).

Version 2.2

There are three levels of Unified Messaging features in version 2.2.

- **Level 1 Voice Mail As E-mail Attachments:** This provides users the ability to receive a Voice Mail message as an e-mail message with a voice attachment. The voice attachment will be in the form of a "wave" (**`.wav`**) file that can be played on any computer equipped with a sound card, speakers, and multimedia software (such as Sound Recorder). Users can choose to receive the messages as Voice Mail and e-mail (Copy & Forward) or as e-mail only (Forward Only). The e-mail server can use SMTP\POP3, VIM, MAPI protocol. The number of users with Level 1 is limited by a security button attached to the voice processing system PC.
- **Level 2 with Microsoft Outlook/Exchange:** To use this voice processing system level, the mailbox E-mail Gateway field must be programmed for Unified Messaging, and the user's PC must have Microsoft Outlook/Exchange and the Unified Messaging Client software installed. Voice mail messages are sent to the Voice Mail server and are stored on the voice processing system. This allows the user to play the messages using the Inter-Tel endpoint speakerphone or the PC's speakers. The number of users with Unified Messaging is limited by a security button attached to the voice processing system PC.
- **Level 3 with Microsoft Outlook/Exchange and Outbound Fax:** This level is the same as Level 2, with outbound fax server features added. Use of the outbound fax server functionality does not require a mailbox, only the Microsoft Outlook/Exchange and Unified Messaging Client software. Therefore, the number of outbound fax users is

not limited by the security button; only the number of mailboxes with Unified Messaging enabled are limited.

Level 1

When a mailbox receives a Voice Mail message or uses the Voice Mail Record-A-Call feature, one of four things can occur, depending on how the mailbox's E-Mail Gateway field is programmed.

- If the field is programmed to DISABLED, the Voice Mail or Record-A-Call message is delivered to the mailbox just as normal and no e-mail is sent.
- If the field is programmed to FORWARD ONLY, the voice processing system will convert the Voice Mail or Record-A-Call message to an 8-bit WAV file, build an e-mail message, attach the WAV file, and send the e-mail message to the address specified in the mailbox's E-mail Address field. Once the e-mail message is sent, the original message will be deleted from the mailbox. (If the e-mail message cannot be delivered to the specified address, it will be stored as a Voice Mail message in the mailbox and will not be deleted.)

  NOTE Mailboxes programmed for FORWARD ONLY cannot use the Remote Notification feature. Because all messages are automatically sent to the E-mail Address, there is no Voice Mail message to trigger the Remote notification.

- If the mailbox's E-mail field is programmed to COPY & FORWARD, the Voice Mail or Record-A-Call message will be stored in the mailbox, ***and*** the voice processing system will convert the file to **WAV**, attach it to an e-mail message, and deliver the e-mail message to the address specified in the mailbox's E-mail Address field.

  NOTE Due to the nature of network connections, voice processing system software is designed to handle a network failure gracefully. If the network link from the voice processing system to the e-mail server is down, the voice processing system will store the messages in a queue. If the network does not come back up in 15 minutes, the voice processing system will deliver all pending messages in the queue back to the Voice Mailboxes and temporarily disable the e-mail queue until the network is available. This means that new messages will remain in the mailboxes and will not be converted to e-mail messages until the network link is restored.

Level 1 Unified Messaging is a "one-way" feature. That is, the user cannot reply to the sender of a Voice Mail message using e-mail. If a user attempts to reply, the message will be sent to the administrator's E-mail Address instead of to the sender of the Voice Mail message. The user should forward the message or send a new message instead of replying. In Levels 2 and 3, the user can reply to any message from another mailbox, using the Outlook/Exchange "Reply" or "Reply to All" options.

E-mail messages containing **.wav** files can be forwarded to other e-mail addresses or stored on the computer's local drive, just like any other e-mail message. Or, the **.wav** file can be detached from the message and stored on the computer.

To use Level 1 Unified Messaging, the customer must have an existing e-mail system based on Message Application Programming Interface (MAPI), Vendor Independent Messaging (VIM), or Simple Mail Transport Protocol/Post Office Protocol (SMTP/POP3).

The following list shows the e-mail systems that are supported, and the protocols on which they are based:

- Microsoft Mail or Microsoft Outlook/Exchange (MAPI)
- cc: Mail or Lotus Notes (VIM)
- Internet mail (SMTP/POP3)

For complete instructions on using Unified Messaging, refer to the *Unified Messaging User Guide*, part number 550.8111.

The e-mail message sent by the Voice Mail will have the following components:

- **To:** The TO line will contain the recipient's e-mail address.
- **From:** The FROM line will contain the e-mail address of the voice processing system. If an E-Mail Real Name has been programmed for the voice processing system, it will also be shown on this line.
- **Subject:** The SUBJECT line will contain the line "<*length of message*> Message for MB <*number*> from <*source*>." If the message is marked priority, the subject line will be preceded by the word "PRIORITY." The source of the Voice Mail message will appear as one of the following:
  - MB <*number*>
  - x <*extension number*>
  - the Voice Mail system
  - an unknown caller
  - an outside caller at <*phone number*>

  If the message is from an extension ID or a mailbox, the programmed username will be shown inside parentheses after the number. For example: mailbox 1000 (ADMIN).
- **Received on:** The RECEIVED ON line contains the date and time that the Voice Mail was received by the mailbox.
- **Priority, Private, or Certified:** If the Voice Mail message was sent with a delivery option, the body will contain the line "Message marked <*PRIORITY, PRIVATE or CERTIFIED*>." Note that this is for informational purposes only and does not affect the e-mail message itself. For example, if a Voice Mail message is marked for certified delivery, the sender will receive a confirmation when the recipient listens to the Voice Mail message using the mailbox. However, the sender will not receive confirmation when the recipient reads the e-mail.
- **WAV file attachment:** The **`.wav`** file attachment will appear as a file with the name **`vm.wav`**. To listen to the message, the user must play the **`.wav`** file using multimedia software (such as Sound Recorder).

Levels 2 and 3

To use Level 2 or 3 Unified Messaging, you must have the following:

- An existing e-mail system based on Microsoft Outlook/Exchange (MAPI).
- The mailboxes' E-mail Gateway fields are programmed for "Unified Messaging."

The Outlook message that contains the Voice Mail will have the following components:

- **To:** This line will contain the recipient's name and mailbox number.
- **From:** This line will contain the sender's name and mailbox or Caller ID, if known, or **Unknown**.

- **Subject:** This line will say "Voice Mail Message." If the message has been forwarded, it is preceded by **FW**.
- **Sent:** This line contains the date and time that the Voice Mail was received by the mailbox.
- **Priority Messages:** If the message is marked "Priority," the subject line will be preceded by an exclamation mark (!) and, in the Options tab, the Importance field is **High**.
- **Private Messages:** If the message is marked "Private," the Sensitivity field in the Options tab will be set to **Private**.
- **Certified Messages:** If the Voice Mail message is marked for certified delivery, the **Track Option** on the Options tab is checked.

Version 2.3

For EM, Unified Messaging is available in two configurations: as an Integrated Solution, and as an Outlook client-based solution. By default, EM includes 25 UM licenses that allow users to customize features based on the solution chosen.

Unified Messaging features allow users to:

- Receive voice mail messages via e-mail.
- Receive inbound faxes via e-mail.
- Send voice mail messages via e-mail (Outlook client-based solution only).
- Send outbound faxes via e-mail (Outlook client-based solution only).

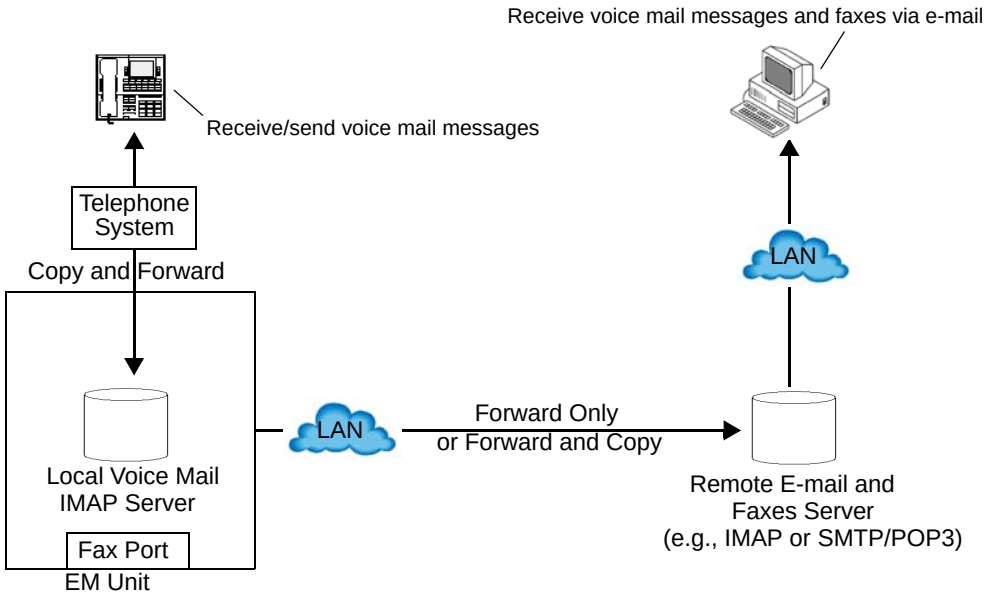
NOTE UM v2.3 is available only for systems using Enterprise Messaging.

Integrated Solution

The Integrated Solution allows users to receive voice mail messages and faxes as e-mail messages with attachments. (An integrated fax port in the EM unit is used for fax functionality.) The voice mail attachment is in the form of a **`.wav`** file that can be played on most multimedia computers (equipped with a sound card and speakers). The fax attachment is in the form of a **`.tif`** file that can be viewed using most graphics software. Users can choose to receive the messages as voice mail and e-mail (Forward & Copy) or as e-mail only (Forward Only).

The following diagram shows an example of the Integrated Solution installation.

Figure 16. *Integrated Solution Installation Example*



NOTE Integrated solution does not require the UM Server and UM Client software. It is set up primarily in telephone system and voice messaging system programming.

When a mailbox receives a voice mail message or uses the voice mail Record-A-Call feature, one of the following options occurs, depending on how the mailbox's E-mail Gateway field is programmed (under Voice Processor\Devices\Mailboxes\<mailbox extention>\Fax/E-mail Forwarding).

NOTICE
Enterprise Messaging has been designed to process outbound fax messages and will support up to 200 pages in queue at the same time. If more page capacity is required, then a stand-alone fax server is recommeded.

The available E-mail Gateway options for Integrated solution are described below:

- **Disabled:** The voice mail or Record-A-Call message is delivered to the mailbox just as normal, and no e-mail is sent.
- **Forward Only:** The EM unit converts the voice mail or Record-A-Call message to an 8-bit **`.wav`** file, builds an e-mail message, attaches the **`.wav`** file, and sends the e-mail message to the address specified in the mailbox's E-mail Address field. When the e-mail message is sent, the original message is deleted from the mailbox. (If the e-mail message cannot be delivered to the specified address, it is stored as a voice mail message in the mailbox and is not deleted.)

  NOTE Mailboxes programmed for "Forward Only" cannot use the Remote Notification feature. Because all messages are automatically sent to the E-mail Address, there is no voice mail message to trigger the Remote notification.

- **Forward & Copy:** The voice mail or Record-A-Call message is stored in the mailbox, and the EM unit converts the file to **.wav**, attaches it to an e-mail message, and delivers the e-mail message to the address specified in the mailbox's E-mail Address field.

> **NOTE** Due to the nature of network connections, the voice messaging software is designed to handle a network failure gracefully. If the network link from the EM unit to the e-mail server is down, the EM unit stores the messages in a queue. If the network is not up in 15 minutes, the EM unit delivers all pending messages in the queue back to the voice mailboxes and temporarily disables the e-mail queue until the network is available. This means that new messages remain in the mailboxes and are not converted to e-mail messages until the network link is restored.

Integrated solution is a "one-way" feature. That is, the user cannot reply to the sender of a voice mail message using e-mail. If a user attempts to reply, the message will be sent to the Administrator's E-mail Address instead of to the sender of the voice mail message. The user should forward the message or send a new message instead of replying.

> **NOTE** In Outlook Client-based solution, the user can reply to any message from another mailbox, using the Outlook/Exchange "Reply" or "Reply to All" options.

E-mail messages containing **.wav** files can be forwarded to other e-mail addresses or stored on the computer's local drive, just like any other e-mail message. Or, the **.wav** file can be detached from the message and stored on the computer.

The e-mail message sent by voice mail has the following components:

- **To:** Contains the recipient's e-mail address.
- **From:** Contains the e-mail address of the EM unit. If an E-mail Real Name has been programmed for the EM unit, it will also be shown on this line.
- **Subject:** Contains the line "<length of message> Message for MB <number> from <source>." If the message is marked priority, the subject line will be preceded by the word "PRIORITY." The source of the voice mail message will appear as one of the following:
  - MB <*number*>
  - x <*extension number*>
  - the voice mail system
  - an unknown caller
  - an outside caller at <*phone number*>

> **NOTE** If the message is from an extension ID or a mailbox, the programmed username will be shown in parentheses after the number, for example: mailbox 1000 (ADMIN).

- **Received On:** Contains the date and time that the voice mail was received by the mailbox.
- **Priority, Private, or Certified:** If the voice mail message was sent with a delivery option, the body will contain the line "Message marked <PRIORITY, PRIVATE or CERTIFIED>." Note that this is for informational purposes only and does not affect the e-mail message itself. For example, if a voice mail message is marked for certified delivery, the sender will receive a confirmation when the recipient listens to the voice mail message using the mailbox. However, the sender will not receive confirmation when the recipient reads the e-mail.

- **WAV File Attachment:** Appears as a file with the name **vm.wav**. To listen to the message, the user must play the **.wav** file using multimedia software (such as Sound Recorder).

Outlook Client-Based Solution

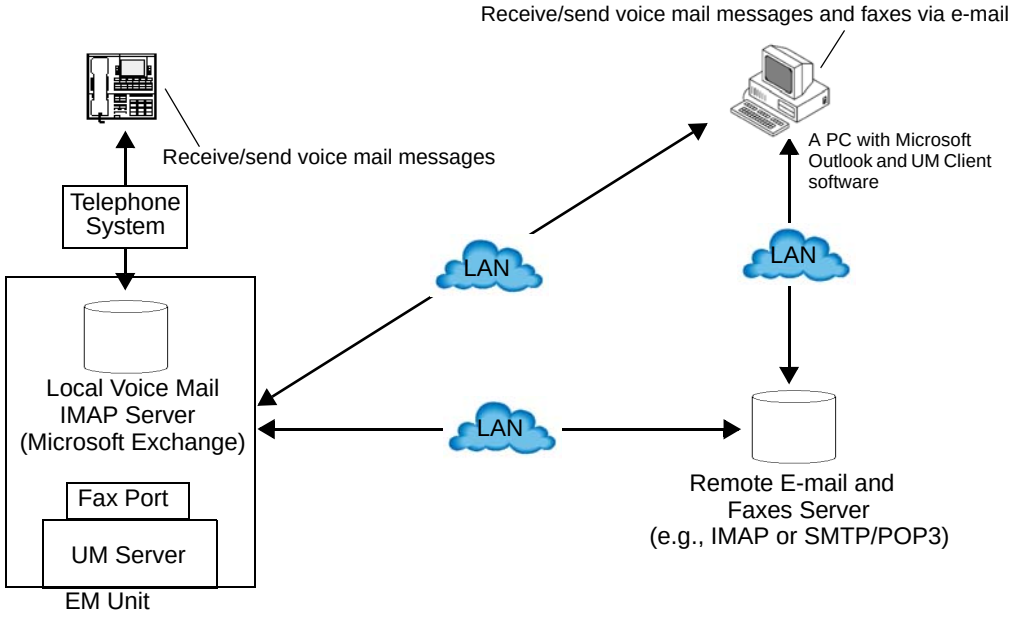
NOTE If you are using Microsoft® Outlook® 2002 with Unified Messaging client 2.3xx, you will need to install Microsoft Office 2002 Service Pack update SP3.

The Outlook Client-based solution works with a separate Microsoft® Exchange e-mail server to provide complete e-mail functionality.

The Outlook Client-based solution provides the same inbound fax capabilities as in Integrated solution. However, it also allows the use of Outlook to send (outbound) and receive (inbound) voice mail messages and faxes via the EM unit (voice mail messages are stored on the EM unit; they are not file attachments). It also allows user the choice of playing the messages using the endpoint speakerphone or the PC speakers.

The following diagram shows an example of the Outlook Client-Based Solution installation.

Figure 17. *Outlook Client-Based Solution Installation Example*


Receive/send voice mail messages and faxes via e-mail
Receive/send voice mail messages
A PC with Microsoft Outlook and UM Client software
Telephone System
LAN
LAN
LAN
Local Voice Mail IMAP Server (Microsoft Exchange)
Fax Port
UM Server
EM Unit
Remote E-mail and Faxes Server (e.g., IMAP or SMTP/POP3)

The Outlook message that contains the voice mail has the following components:

- **To:** Contains the recipient's name and mailbox number.
- **From:** Contains the sender's name and mailbox or CLIP in Europe), if known, or **Unknown**.
- **Subject:** If the message is from a endpoint, it indicates "VM message from mailbox xxxx." If the message is from a UM Client user, it indicates the description that the user had entered in their message. If the message has been forwarded, it is preceded by **FW**.
- **Sent:** Contains the date and time that the Voice Mail was received by the mailbox.
- **Priority Messages:** If the message is marked "Priority," the subject line will be preceded by an exclamation mark (!) and, in the Options tab, the Importance field is **High**.

- **Private Messages:** If the message is marked "Private," the Sensitivity field in the Options tab will be set to **Private**.
- **Certified Messages:** If the voice mail message is marked for certified delivery, the Track Option on the Options tab is checked.

For complete instructions about using UM Outlook Client-based solution, refer to the *Unified Messaging User Guide*, part number 550.8111.

Voice Processing Prompts

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Default Voice Processing Prompts

This section contains the default voice prompts for the voice processing systems supported by the Inter-Tel CS-5200/5400 platform. The Inter-Tel platform supports the following voice processing systems:

- **Basic Voice Mail:** The built-in voice processing system, Basic Voice Mail (BVM) provides voice mail and voice messaging for system users. BVM runs on the Linux® operating system and does not support Fax-On-Demand, buffered SMDR, or Unified Messaging. If part of a network, mailboxes on an Inter-Tel CS-5200/5400 node equipped only with BVM cannot forward messages to, or receive messages forwarded from, mailboxes on other nodes.
- **Enterprise® Messaging:** Enterprise Messaging (EM) runs on the Windows 2000 operating system. EM is Inter-Tel's the newest voice processing system. EM unifies communication and messaging by providing access to voice mail, fax, and e-mail messages in the user's mailbox. In addition, EM provides automatic speech recognition capabilities and built-in Unified Messaging features. For detailed information about EM, see the *Enterprise Messaging Installation Manual* (part no. 780.8006).
- **Voice Processing Unit:** The Voice Processing Unit (VPU) runs on either the Windows NT or Windows 2000 operating systems. The VPU system is installed on an IBM-compatible PC that is connected to the Inter-Tel system to provide integrated voice processing features such as Voice Mail, Directories, Record-A-Call, etc.

BVM, EM, and VPU Voice Prompts

The following table shows all of the U.S. English default system voice mail prompts for the Voice Processing Unit (VPU) and the Basic Voice Mail (BVM).

Table 41. *Voice Prompts: BVM, EM, and VPU*

PROMPT ID	CONTENT
001	To leave a message, please enter a mailbox number.
002	For the directory, press pound.
003	To reach an operator, press 0.
004	I'm sorry...
005	...is not available.
006	The number entered is not valid.
007	Using the buttons on your phone, please spell the last name of the person, then press POUND. For the letter Q, press 7. For the letter Z, press 9.
008	To exit the directory, press STAR.
009	Mailbox number...
010	If this is correct, press POUND.
011	For the previous name in the directory, press 1.
012	To hear additional information, press 2.
013	To hear the next directory name, press 3.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
014	To spell a new name, press 4.
015	Extension number...
017	...is not a valid choice.
018	Please try again.
019	After the tone, please record your message. When finished, you may hang up to deliver the message or press POUND for more options.
020	Message delivered.
021	To replay, press 1.
022	To erase and re-record, press 3.
023	To append this recording, press 2.
024	To accept, press POUND.
025	Please record after the tone. To end, press POUND.
026	Recording erased.
027	Recording stopped.
028	Please begin speaking after the tone.
029	Message play stopped. To continue, press POUND.
030	Enter the destination mailbox or group list number.
031	Logon canceled.
032	Enter your password. Then press POUND.
033	There have been 3 invalid attempts to log onto your mailbox.
034	Invalid password.
035	Thank you for calling. Good-bye.
036	To access Voice Mail features, you must change your system-assigned password.
037	You have not finished setting up your mailbox.
038	Subscriber access denied.
039	Because this is the first time you are accessing your mailbox, you must record your name for the company directory.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
040	Since you are accessing your mailbox for the first time, you should be aware of a few standard features. To cancel an option you have accessed and return to the previous menu, press STAR. To accept your recording or dialing sequence, or to advance to your next message, press POUND. For help, you may press 0 at any time you are at a menu and Voice Mail will replay the current menu and or give you additional information. Certain Voice Mail features such as remote messaging are available from your mailbox only if authorized by your System Administrator. Your mailbox is now fully set up.
041	Your password may be up to 12 digits.
042	Enter your new password, then press POUND. If you don't want a password, press POUND now.
043	You new password is...
044	The number entered is too long.
045	To accept this entry, press POUND.
046	To erase and re-enter, press 3.
047	Password erased.
048	Password saved.
049	Your mailbox is full and cannot receive any new messages. Please delete old messages.
050	Not used.
051	Not used.
052	Your mailbox is almost full. Please delete any messages you no longer need so new messages may arrive.
053	You have...
054	You have one new message.
055	...new messages.
056	...of which is priority.
057	You have no new messages.
058	You have one saved message.
059	...saved messages.
060	Remote messaging is currently enabled.
061	To listen to new messages, press 1.
062	To record a message, press 2.
063	To listen to saved messages, press 3.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
064	For personal options, press 4.
065	To setup remote messaging, press 5.
066	For your primary setup, press 1.
067	For your alternate setup, press 2.
068	If this is the correct destination, press POUND.
069	To send this message now, press POUND.
070	For special delivery options, press 9.
071	To return to the previous menu, press STAR.
072	Message canceled.
073	To mark this message private, press 1.
074	To mark this message for certified delivery, press 2.
075	To mark this message priority, press 3.
076	Message marked private.
077	Message marked certified.
078	Message marked priority.
079	To send this message to additional mailboxes, press POUND.
080	To backup within your message or recording, press 1.
081	To pause at any time, press 2.
082	To advance press 3.
083	To lower the Voice Mail volume, press 4.
084	To increase volume, press 6.
085	To save this message, press 7.
086	To delete this message, press 9.
087	To skip to the end of your message or re cording, press POUND.
088	To return to the main menu, press STAR.
089	To reply to this message, press 2.
090	To forward a copy of this message to another destination, press 3.
091	To skip back to the previous message, press 4.
092	To replay the message envelope, press 5.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
093	To listen to your next message, press 6.
094	There are no previous messages.
095	Message saved.
096	Message deleted.
097	There are no further messages.
098	Message received...
099	...at...
100	...from...
101	...totaling...
102	...minutes...
103	...minute...
104	...seconds...
105	...second...
106	Message received from an outside caller.
107	To record an introduction with a copy of this message, press 1.
108	To change your personal greeting, press 1.
109	To change your name in the directory, press 2.
110	To change your password, press 3.
111	To change your message envelope, press 4.
112	To replay the message, press 1.
113	To use your primary greeting, press 1.
114	To select your alternate greeting, press 2.
115	To select the system greeting, press 3.
116	After the tone, please record your greeting, then press POUND.
117	Greeting saved.
118	After the tone, please record your name, then press POUND.
119	Name saved.
120	Your message envelope is currently set to return...
121	...all information.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
122	...time and date...
123	...message source...
124	...and...
125	...message length...
126	To turn on all envelope options, press 4.
127	For message source, press 2.
128	For message length, press 3.
129	This option is now off.
130	This option is now on.
131	For time and date, press 1.
132	Your message envelope will play all options.
133	...is turned on to call you at...
134	AM
135	PM
136	...Extension ID number...
137	...Every day.
138	...Monday through Friday.
139	Sunday
140	Monday
141	Tuesday
142	Wednesday
143	Thursday
144	Friday
145	Saturday
146	To turn this number on or off, press 1.
147	To change the telephone number, press 2.
148	To change times of day, press 2.
149	To change days of the week, press 3.
150	For pager notification, press 1.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
151	For personal phone notification, press 2.
152	For notification of all new messages, press 1.
153	For priority-only, press 2.
154	Please enter the destination telephone number and wait for further instructions.
155	The new number is...
156	Please enter the start time.
157	Please enter the stop time.
158	I'm sorry. You must program a telephone number first.
159	Invalid time.
160	For AM, press 1.
161	Please select the days of the week on which you wish to be notified.
162	Not used.
163	Please enter your mailbox number.
164	Today
165	Yesterday
166	January
167	February
168	March
169	April
170	May
171	June
172	July
173	August
174	September
175	October
176	November
177	December
178	First

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
179	Second
180	Third
181	Fourth
182	Fifth
183	Sixth
184	Seventh
185	Eighth
186	Ninth
187	Tenth
188	Eleventh
189	Twelfth
190	Thirteenth
191	Fourteenth
192	Fifteenth
193	Sixteenth
194	Seventeenth
195	Eighteenth
196	Nineteenth
197	Twentieth
198	Twenty-first
199	Twenty-second
200	Twenty-third
201	Twenty-fourth
202	Twenty-fifth
203	Twenty-sixth
204	Twenty-seventh
205	Twenty-eighth
206	Twenty-ninth
207	Thirtieth

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
208	Thirty-first
209	...the Voice Mail system.
210	The system is set to notify you between...
211	...is turned off.
212	...is turned on to call your pager at...
213	...with all new messages.
214	...with all priority messages.
215	...starting at...
216	...ending at...
217	For mailbox and group list maintenance, press 2.
218	To send a message to all subscribers, press 1.
219	To make a custom recording, press 1.
220	To select a custom recording, press 2.
221	Not used.
222	Please enter the recording number.
223	After the tone, please record. Then press POUND.
224	Recording saved.
225	To continue recording, press POUND.
226	Not used.
227	No saved messages.
228	To change and spell the first name, press 5.
229	To change and spell the last name, press 5.
230	Using the buttons on your phone, please spell the first name of the person. Then press POUND. For the letter Q, press 7. For the letter Z, press 9.
231	No message left.
232	...last...
233	...an outside caller at...
234	Message was sent from...
235	This matches the mailbox of...

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
236	...an unknown caller.
237	To turn off the envelope, press 5.
238	To accept the changes, press POUND.
239	The envelope is turned off.
240	Please enter the application extension number.
241	To select a day recording, press 1.
242	To select a night recording, press 2.
243	If this is the correct recording, press POUND.
244	Warning, no recording has been made.
245	Invalid application entered.
246	...is not a valid recording number.
247-252	Not used.
253	This is a return receipt verifying the message sent has been heard.
254	I'm sorry. Private messages cannot be for warded.
255	This is the message center calling for...
256	If you are the correct person, press POUND.
257	...One
258	...Two
259	...Three
260	...Four
261	...Five
262	...Six
263	...Seven
264	...Eight
265	...Nine
266	...Ten
267	...Eleven
268	...Twelve
269	...Thirteen

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
270	...Fourteen
271	...Fifteen
272	...Sixteen
273	...Seventeen
274	...Eighteen
275	...Nineteen
276	...Twenty
277	...Thirty
278	...Forty
279	...Fifty
280	...Sixty
281	...Seventy
282	...Eighty
283	...Ninety
284	...Hundred
285	This mailbox is currently full and cannot receive new messages.
286	Oh
287	...of which are priority.
288	Priority message received...
289	Otherwise, press STAR.
290	When you are finished entering mailbox numbers, press POUND.
291	Otherwise, press POUND.
292	For PM, press 2.
293	For Sunday, press 1.
294	For Monday, press 2.
295	For Tuesday, press 3.
296	For Wednesday, press 4.
297	For Thursday, press 5.
298	For Friday, press 6.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
299	For Saturday, press 7.
300	For Monday through Friday service, press 1.
301	For all the days of the week, press 2.
302	Thousand
303	The hard disk is...
304	...percent full.
305	I'm sorry. Voice mail is full and cannot re cord any messages.
306	Zero
307	POUND
308	STAR
309	Group list number...
310	Please speak louder.
311	You have recorded for the maximum time permitted.
312	Not used.
313	Resuming playback.
314	You have one priority message.
315	Use 2 digits for the hour and 2 digits for the minutes.
316-317	Not used.
318	You have chosen not to have a password.
319	I'm sorry. This mailbox is currently in use and cannot be accessed. Please try again later.
320	Not used.
321	If you are calling from a rotary-type phone, please stay on the line and your call will be answered.
322	You cannot reply to a system sent message.
323	Zero is not a valid entry. To spell a name, please press one number on the phone dialpad for each letter of the person's name you are entering. For the letter A, press the number 2 button one time and for the letter F, press the number 3 button one time. When you are finished, press POUND.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
324	Zero is not a valid entry. To spell a name, please press the associated number on the phone dialpad with the desired letter of the person's name you are entering. For the letter A, press the number 2 button once. for the letter B, press it twice and for the letter C, three times. When you are finished, press POUND.
325	Please select the days of the week.
326	To select individual week days, press 3.
327	Service is set for Monday through Friday.
328	Service is set for each day of the week.
329	Recording canceled.
330	The system was busy and could not deliver message notification at the specified time.
331	The system was unable to deliver message notification due to a programming error.
332	Extension ID...
333	...the operator.
334	...the operator...
335	Remote Messaging will call...
336	To change a cascade level, press 1.
337	To select a message notification category, press 4.
338	Please enter the cascade level you wish to program.
339	...with a pager number of...
340	To change the pager dial string, press 3.
341	To call an internal extension, press 1.
342	To call an outside number, press 2.
343	Not used.
344	Please enter the digits for your digital pager and wait for further instructions.
345	The new pager number is...
346	Mailbox Number
347	New Message Count
348	Pause
349	You must program a telephone number first.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
350	You have chosen not to have a pager number.
351	Cascade Level...
352	You did not enter a valid document number.
353	This document is currently unavailable.
354	... is not a valid document number.
355	You have already selected that document.
356	To cancel, press STAR.
357	You have selected the maximum number of documents allowed.
358	To send your fax, press pound.
359	You have selected one document.
360	You haven't selected any documents yet.
361	You may select one more document during this call.
362	You may select up to...
363	... more documents during this call.
364	Selections Canceled.
365	The number that will appear on your fax cover sheet is...
366	You have chosen not to have your extension appear on your cover sheet.
367	If you would like to have your fax automatically delivered to you later, press pound.
368	To re-enter the number, press 3.
369	If you wish to have your extension appear on your cover sheet, enter the extension followed by the POUND button.
370	If you are calling from your fax machine, press 1.
371	Press the start button on your fax machine now.
372	All of our fax lines are currently busy.
373	Please try again later.
374	Your fax will be delivered to...
375	Your fax will be delivered shortly.
376	I am unable to communicate with your fax machine. Please make sure it is operating properly and try again.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
377	Please enter the 10 digit area code and telephone number of your fax machine.
378	The number you enter may be up to twenty digits in length.
379	Your fax is scheduled to be delivered at...
380	Please enter a document number.
381	When you have finished importing documents, press star.
382	Document number...
383	...is currently in use.
384	...already exists.
385	To replace this document, press POUND.
386	Document received.
387	Press POUND to continue.
388	To import a fax document, press 4.
389	If this is an international call, enter 011 followed by your country code and your fax number. Then, press POUND.
390	I'm sorry. I'm not allowed to dial that number.
391	To receive your documents, please hang up and call from your fax machine.
392	The system does not have enough disk space to import your document.
393	The system is unable to import your document because it will exceed the Maximum Fax Library Size.
394	For recording options, press 3.
395	There are...
396	... calls ahead of you.
397	Your call should be answered within...
398	You have selected...
399	...documents.
400	Hello, you've reached the Inter-Tel voice processing system.
401	Hello, you've reached the Inter-Tel automated call processing system.
402	To change your message search order, press 2.
403	Your current message search order is first in first out.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
404	Your current message search order is last in, first out.
405	To search for messages first in first out, press 1.
406	To search for messages last in first out, press 2.
407	To change the search order for new messages, press 1.
408	To change the search order for saved messages, press 2.
409-499	Not used.
500	If you know your party's extension number, enter it now.
501	To leave a message, press 1.
502	To try another extension, press 2.
503	Please hold while your call is being transferred to...
504	Not used.
505	To return to the menu, press 2.
506	Your fax is scheduled to be delivered on...
507	The system already contains the maximum number of fax documents allowed.
508	The system does not have enough disk space to import any more documents.
509	The system is currently at or above the Maximum Fax Library Size.
510	Levels 1 through 9 are currently disabled.
511	Your call will be answered in the order it was received.
512	There is one call ahead of you.
513	To change your transfer method, press 5.
514	Your current transfer method is unannounced.
515	Your current transfer method is screened.
516	Your current transfer method is announce only.
517	To select unannounced transfers, press 1.
518	For screened transfers, press 2.
519	For announce only, press 3.
520	Who should I say is calling?
521	To replay the announcement, press 1.
522	To send this call to Voice Mail, press 2.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
523	To forward this call to another extension, press 3.
524	To accept this call, press POUND.
525	To refuse this call, press STAR.
526	You have a call from...
527-534	Not used.
535	Please enter the extension number.
536-537	Not used.
538	For system prompt replacement or reinstatement, press 6.
539	Please enter the number of the system prompt.
540	The system prompt has been replaced by the following custom prompt...
541	The original system prompt is...
542	To replace this system prompt with a custom prompt, press 3.
543	...is not a valid system prompt number.
544	To delete the custom prompt and reinstate the system prompt, press 9.
545	To replace this custom prompt with a new custom prompt, press 3.
546	You have no deleted messages.
547	You have one deleted message.
548	...deleted messages.
549	To recover deleted messages, press 2.
550	To recover this message, press 7.
551	Message recovered.
552	To purge this message, press 9.
553	Message purged.
554	To listen to deleted messages, press 1.
555	To recover all messages, press 2.
556	To purge all messages, press 3.
557	...messages recovered.
558	...messages purged.
559	...message recovered.

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
560	...message purged.
561	For message options, press 5.
562	For more options, press 9.
563	To change the fax destination number, press 1.
564	Please enter the extension number of your fax destination, followed by the [#] button.
565	Your fax destination is...
566	You have chosen not to have a fax destination.
567	Invalid extension.
568	Fax destination saved.
569	Fax destination erased.
570	To cancel unheard sent messages, press 1.
571	All sent messages have been heard.
572	Enter the destination mailbox.
573	This mailbox has one unheard message.
574	...unheard messages.
575	To append to the message, press 2.
576	To leave a Voice Mail message, press 1.
577	To make a return call, press 2.
578	Please hold while your call is being transferred to an outside number.
579–580	Not used.
581	…has just listened to the original message.
582	This mailbox has...
583	This message was canceled by the originator.
584	I'm sorry, there are no network mailboxes available for node...
585	For the directory, press # now.
586	I'm sorry, you cannot reply to this network message.
587	The following message could not be delivered to...
588	This nonsubscriber message could not be delivered to...

Table 41. *Voice Prompts: BVM, EM, and VPU (Continued)*

PROMPT ID	CONTENT
589	Enter the number of the remote extension.
590	To cancel this message, press *.
591	Fax-on-demand was unable to deliver one or more faxes. Please view the Fax Delivery Report for details.
592	I'm sorry. I'm not allowed to dial that number.
593	Message received from an outside number with no Caller ID information.
594	I'm sorry. I do not have valid Caller ID information.
595	...the network...
596	Your call is being handled by the Inter-Tel voice processing system.

EM Voice Prompts

The following table shows all of the US English default system voice prompts for ASR- and non ASR-enabled Enterprise Messaging (EM) systems. Prompts designated by an asterisk (*) cannot be re-recorded.

Table 42. *Voice Prompts: Non-ASR and ASR*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
001	To leave a message, please enter a mailbox number.	To leave a message, please say or enter a mailbox number.
002	For the directory, press pound.	For the directory, say “Directory” or press pound.
003	To reach an operator, press zero.	To reach an operator, say “Operator” or press zero.
004	I’m sorry...	N/A
005	...is not available.	N/A
006	The number entered is not valid.	N/A
007	Using the keys on your telephone, please spell the name of the person, then press pound. For the letter Q, press seven. For the letter Z, press nine. To advance to the next character, please wait for two seconds or press another key. To exit the directory, press star.	Please say the name of the person you are trying to reach. Otherwise, using the keys on your telephone, please spell the last name of the person, then press pound. For the letter Q, press seven. For the letter Z, press nine. To advance to the next character, please wait for two seconds or press another key. To exit the directory, press star.
008	To exit the directory, press star.	To exit the directory, say “Cancel” or press star.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
009	Mailbox number...	N/A
010	If this is correct, press pound.	If this is correct, say “Yes” or press pound.
011	For the previous name in the directory, press one.	For the previous name, say “Previous” or press one.
012	To hear additional information, press two.	To hear additional information, say “More” or press two.
013	To hear the next directory name, press three.	To hear the next name, say “Next” or press three
014	To spell a new name, press four.	To spell a new name, say “New” or press four.
015	Extension number...	N/A
016	Not Used	Not Used
017	...is not a valid choice.	N/A
018	Please try again.	N/A
019	After the tone, please record your message. When finished, you may hang up to deliver the message or press pound for more options.	N/A
020	Message delivered.	N/A
021	To replay, press one.	To replay, say “Replay” or press one.
022	To erase and re-record, press three.	To erase and re-record, say “Erase” or press three.
023	To append this recording, press two.	To append this recording, say “Append” or press two.
024	To accept, press pound.	To accept, say “Accept” or press pound.
025	Please record after the tone. To end, press pound.	N/A
026	Recording erased.	N/A
027	Recording stopped.	N/A
028	Please begin speaking after the tone.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
029	Message play stopped. To continue, press pound.	Message play stopped. To continue, say “Resume” or press pound.
030	Enter the destination mailbox or group list number.	Say or enter the destination mailbox or group list number.
031	Logon canceled.	N/A
032	Enter your password. Then press pound.	Say or enter your password.
033	There have been three invalid attempts to log onto your mailbox.	N/A
034	Invalid password.	N/A
035	Thank you for calling. Good-bye.	N/A
036	To access mailbox features, you must change your system-assigned password.	N/A
037	You have not finished setting up your mail box.	N/A
038	Subscriber access denied.	N/A
039	Because this is the first time you are entering your mailbox, you must record your name for the company directory.	N/A
040	Since you are entering your mailbox for the first time, you should be aware of a few standard features. To cancel an option you have accessed and return to the previous menu press star. To accept your recording or dialing sequence, or to advance to your next message press pound. For help, you may press zero at any time you are at a menu and the system will replay the current menu and or give you additional information. Certain mailbox features such as remote messaging are available only if authorized by your System Administrator. Your mailbox is now fully set up.	Since you are entering your mailbox for the first time, you should be aware of a few standard features. To cancel an option you have accessed and return to the previous menu, say “Cancel” or press star. To accept your recording or dialing sequence, or to advance to your next message, say “Accept” or press pound. For help, say “Help” or press zero to replay the current menu and/or give you additional information. Certain mailbox features such as remote messaging are available only if authorized by your System Administrator. Your mailbox is now fully set up.
041	Your password may be up to 12 digits.	N/A
042	Enter your new password, then press pound. If you don’t want a password, press pound now.	Say or enter your new password. If you don’t want a password, say “Skip” or press pound.
043	Your new password is…	N/A
044	The number entered is too long.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
045	To accept this entry, press pound.	To accept this entry, say “Accept” or press pound.
046	To erase and re-enter, press three.	To erase and re-enter, say “Re-enter” or press three.
047	Password erased.	N/A
048	Password saved.	N/A
049	Your mailbox is full and cannot receive any new messages. Please delete old messages.	N/A
050	Not used	N/A
051	Not used	N/A
052	Your mailbox is almost full. Please delete any messages you no longer need so new messages may arrive.	N/A
053	You have...	N/A
054	You have one new message.	N/A
055	...new messages.	N/A
056	...of which is priority.	N/A
057	You have no new messages.	N/A
058	You have one saved message.	N/A
059	...saved messages.	N/A
060	Remote messaging is currently enabled.	N/A
061	To listen to new messages, press one.	To listen to new messages, say “New” or press one.
062	To record a message, press two.	To record a message, say “Record” or press two.
063	To listen to saved messages, press three.	To listen to saved messages, say “Saved” or press three.
064	For personal options, press four.	For personal options, say “Personal” or press four.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
065	To setup remote messaging, press five.	To setup remote messaging, say “Remote” or press five.
066	For your primary setup, press one.	For your primary setup, say “Primary” or press one.
067	For your alternate setup, press two.	For your alternate setup, say “Alternate” or press two.
068	If this is the correct destination, press pound.	If this is the correct destination, say “Yes” or press pound.
069	To send this message now, press pound.	To send this message now, say “Send” or press pound.
070	For special delivery options, press nine.	For special delivery options, say “Options” or press nine.
071	To return to the previous menu, press star.	To return to the previous menu, say “Cancel” or press star.
072	Message canceled.	N/A
073	To mark this message private, press one.	To mark this message private, say “Private” or press one.
074	To mark this message for certified delivery, press two.	To mark this message for certified delivery, say “Certified” or press two.
075	To mark this message priority, press three.	To mark this message priority, say “Priority” or press three.
076	Message marked private.	N/A
077	Message marked certified.	N/A
078	Message marked priority.	N/A
079	To send this message to additional mail boxes, press pound.	To send this message to additional mail boxes, say “Yes” or press pound.
080	To rewind your message or recording, press one.	To rewind your message or recording, say “Backup” or press one.
081	To pause at any time, press two.	To pause at any time, say “Pause” or press two.
082	To fast forward your message or recording, press three.	To fast forward your message or recording say “Forward” or press three.
083	To lower the volume, press four.	To lower the volume, say “Lower” or press four.
084	To raise the volume, press six.	To raise the volume, say “Higher” or press six.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
085	To save this message, press seven.	To save this message, say “Save” or press seven.
086	To delete this message, press nine.	To delete this message, say “Delete Message” or press nine.
087	To skip to the end of your message or recording, press pound.	To skip to the end of your message or recording, say “Skip” or press pound.
088	To return to the main menu, press star.	To return to the main menu, say “Cancel” or press star.
089	To reply to this message, press two.	To reply to this message, say “Reply” or press two.
090	To forward a copy of this message to another destination, press three.	To forward a copy of this message to another destination, say “Forward” or press three.
091	To replay the previous message, press four.	To replay the previous message, say “Previous” or press four.
092	To replay the message envelope, press five.	To replay the message envelope, say “Envelope” or press five.
093	To listen to your next message, press six.	To listen to your next message, say “Next” or press six.
094	There are no previous messages.	N/A
095	Message saved.	N/A
096	Message deleted.	N/A
097	There are no further messages.	N/A
098	Message received...	N/A
099	...at...	N/A
100	...from...	N/A
101	...totaling...	N/A
102	...minutes...	N/A
103	...minute...	N/A
104*	...seconds...	N/A
105	...second...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
106	Message received from an outside caller.	N/A
107	To record an introduction with a copy of this message, press one.	To record an introduction with a copy of this message, say “Record” or press one.
108	To change your personal greeting, press one.	To change your personal greeting, say “Greeting” or press one.
109	To change your name in the directory, press two.	To change your name in the directory, say “Name” or press two.
110	To change your password, press three.	To change your password, say “Password” or press three.
111	To change your message envelope, press four.	To change your message envelope, say “Envelope” or press four.
112	To replay the message, press one.	To replay the message, say “Replay” or press one.
113	To select your primary greeting, press one.	To select your primary greeting, say “Primary” or press one.
114	To select your alternate greeting, press two.	To select your alternate greeting, say “Alternate” or press two.
115	To select the system greeting, press three.	To select the system greeting, say “System” or press three.
116	After the tone, please record your greeting, then press pound.	N/A
117	Greeting saved.	N/A
118	After the tone, please record your name, then press pound.	N/A
119	Name saved.	N/A
120	Your message envelope is currently set to return...	N/A
121	...all information.	N/A
122	...time and date...	N/A
123	...message source...	N/A
124*	...and...	N/A
125	...message length...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
126	To turn on all envelope options, press four.	To turn on all envelope options, say “All Options” or press four.
127	For message source, press two.	For message source, say “Source” or press two.
128	For message length, press three.	For message length, say “Length” or press three.
129	This option is now off.	N/A
130	This option is now on.	N/A
131	For time and date, press one.	For time and date, say “Time, Date” or press one.
132	Your message envelope will play all options.	N/A
133	...is turned on to call you at...	N/A
134*	AM	N/A
135*	PM	N/A
136	...Extension ID number...	N/A
137	...Every day.	N/A
138	...Monday through Friday.	N/A
139*	Sunday	N/A
140*	Monday	N/A
141*	Tuesday	N/A
142*	Wednesday	N/A
143*	Thursday	N/A
144*	Friday	N/A
145*	Saturday	N/A
146	To turn this number on or off, press one.	To turn this number on or off, say “Change” or press one.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
147	To change the telephone number, press two.	To change the telephone number, say “Number” or press two.
148	To change times of day, press two.	To change times of day, say “Time” or press two.
149	To change days of the week, press three.	To change days of the week, say “Days” or press three.
150	For pager notification, press one.	For pager notification, say “Pager” or press one.
151	For personal phone notification, press two.	For personal phone notification, say “Personal” or press two.
152	For notification of all new messages, press one.	For notification of all new messages, say “All Messages” or press one.
153	For priority-only, press two.	For priority-only, say “Priority” or press two.
154	Please enter the destination telephone number and wait for further instructions.	Please say or enter the destination telephone number and wait for further instructions.
155	The new number is...	N/A
156	Please enter the start time.	Please say or enter the start time.
157	Please enter the stop time.	Please say or enter the stop time.
158	I’m sorry. You must program a telephone number first.	N/A
159	Invalid time.	N/A
160	For AM, press one.	For AM, say “AM” or press one.
161	Please select the days of the week on which you wish to be notified.	N/A
162	Not used	N/A
163	Please enter your mailbox number.	Please say or enter your mailbox number.
164	Today	N/A
165	Yesterday	N/A
166*	January	N/A
167*	February	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
168*	March	N/A
169*	April	N/A
170*	May	N/A
171*	June	N/A
172*	July	N/A
173*	August	N/A
174*	September	N/A
175*	October	N/A
176*	November	N/A
177*	December	N/A
178*	First	N/A
179*	Second	N/A
180*	Third	N/A
181*	Fourth	N/A
182*	Fifth	N/A
183*	Sixth	N/A
184*	Seventh	N/A
185*	Eighth	N/A
186*	Ninth	N/A
187*	Tenth	N/A
188*	Eleventh	N/A
189*	Twelfth	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
190*	Thirteenth	N/A
191*	Fourteenth	N/A
192*	Fifteenth	N/A
193*	Sixteenth	N/A
194*	Seventeenth	N/A
195*	Eighteenth	N/A
196*	Nineteenth	N/A
197*	Twentieth	N/A
198*	Twenty-first	N/A
199*	Twenty-second	N/A
200*	Twenty-third	N/A
201*	Twenty-fourth	N/A
202*	Twenty-fifth	N/A
203*	Twenty-sixth	N/A
204*	Twenty-seventh	N/A
205*	Twenty-eighth	N/A
206*	Twenty-ninth	N/A
207*	Thirtieth	N/A
208*	Thirty-first	N/A
209	...the Voice Mail system.	N/A
210	The system is set to notify you between...	N/A
211	...is turned off.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
212	...is turned on to call your pager at...	N/A
213	...with all new messages.	N/A
214	...with all priority messages.	N/A
215	...starting at...	N/A
216	...ending at...	N/A
217	For mailbox and group list maintenance, press two.	For mailbox and group list maintenance, say “Mailbox Maintenance” or press two.
218	To send a message to all subscribers, press one.	To send a message to all subscribers, say “Broadcast Message” or press one.
219	To make a custom recording, press one.	To make a custom recording, say “Custom” or press one.
220	To select a custom recording, press two.	To select a custom recording, say “Select” or press two.
221	Not Used	Not Used
222	Please enter the recording number.	N/A
223	After the tone, please record. Then press pound.	N/A
224	Recording saved.	N/A
225	To continue recording, press pound.	To continue recording, say “Continue” or press pound.
226	Not Used	Not Used
227	You have no saved messages.	N/A
228	To spell the first name, press five.	To search by first name, say “First” or press five.
229	To spell the last name, press five.	To search by last name, say “Last” or press five.
230	Using the keys on your telephone, please spell the first name of the person. Then press pound. For the letter Q, press seven. For the letter Z, press nine.	Please say the first name of the person you are trying to reach. Otherwise, using the keys on your telephone, please spell the first name of the person, then press pound. For the letter Q, press seven. For the letter Z, press nine.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
231	No message left.	N/A
232	...last...	
233	...an outside caller at...	
234	Message was sent from...	N/A
235	This matches the mailbox of...	N/A
236	...an unknown caller.	N/A
237	To turn off the envelope, press five.	To turn off the envelope, say “None” or press five.
238	To accept the changes, press pound.	To accept the changes, say “Accept” or press pound.
239	The envelope is turned off.	N/A
240	Please enter the application extension number.	Please say or enter the application extension number.
241	To select a day recording, press one.	To select a day recording, say “Day” or press one.
242	To select a night recording, press two.	To select a night recording, say “Night” or press two.
243	If this is the correct recording, press pound.	If this is the correct recording, say “Yes” or press pound.
244	Warning, no recording has been made.	N/A
245	Invalid application entered.	N/A
246	...is not a valid recording number.	N/A
247	Not used	N/A
248	Not used	N/A
249	Not used	N/A
250	Not used	N/A
251	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
252	Not used	N/A
253	This is a return receipt verifying the message sent has been heard.	N/A
254	I'm sorry. Private messages cannot be for warded.	N/A
255	This is the message center calling for...	N/A
256	If you are the correct person, press pound.	If you are the correct person, say "Yes" or press pound.
257*	...One	N/A
258*	...Two	N/A
259*	...Three	N/A
260*	...Four	N/A
261*	...Five	N/A
262*	...Six	N/A
263*	...Seven	N/A
264*	...Eight	N/A
265*	...Nine	N/A
266*	...Ten	N/A
267*	...Eleven	N/A
268*	...Twelve	N/A
269*	...Thirteen	N/A
270*	...Fourteen	N/A
271*	...Fifteen	N/A
272*	...Sixteen	N/A
273*	...Seventeen	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
274*	...Eighteen	N/A
275*	...Nineteen	N/A
276*	...Twenty	N/A
277*	...Thirty	N/A
278*	...Forty	N/A
279*	...Fifty	N/A
280*	...Sixty	N/A
281*	...Seventy	N/A
282*	...Eighty	N/A
283*	...Ninety	N/A
284*	...Hundred	N/A
285	This mailbox is currently full and cannot receive new messages.	N/A
286*	Oh	N/A
287	...of which are priority.	N/A
288	Priority message received...	N/A
289	Otherwise, press star.	Otherwise, say “No” or press star.
290	When you are finished entering mailbox numbers, press pound.	N/A
291	Otherwise, press pound.	Otherwise, say “Send” or press pound.
292	For PM, press two.	For PM, say “PM” or press two.
293	For Sunday, press one.	For Sunday, say “Sunday” or press one.
294	For Monday, press two.	For Monday, say “Monday” or press two.
295	For Tuesday, press three.	For Tuesday, say “Tuesday” or press three.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
296	For Wednesday, press four.	For Wednesday, say “Wednesday” or press four.
297	For Thursday, press five.	For Thursday, say “Thursday” or press five.
298	For Friday, press six.	For Friday, say “Friday” or press six.
299	For Saturday, press seven.	For Saturday, say “Saturday” or press seven.
300	For Monday through Friday service, press one.	For Monday through Friday service, say “Weekdays” or press one.
301	For all the days of the week, press two.	For all the days of the week, say “Days” or press two.
302*	Thousand	N/A
303	The hard disk is...	N/A
304	...percent full.	N/A
305	I’m sorry. The system is full and cannot record any messages.	N/A
306*	Zero	N/A
307	pound	N/A
308	star	N/A
309	Group list number...	N/A
310	Please speak louder.	N/A
311	You have recorded for the maximum time permitted.	N/A
312	Not used	N/A
313	Resuming playback.	N/A
314	You have one priority message.	N/A
315	Use two digits for the hour and two digits for the minutes.	N/A
316	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
317	Not used	N/A
318	You have chosen not to have a password.	N/A
319	I'm sorry. This mailbox is currently in use and cannot be accessed. Please try again later.	N/A
320	Not used	N/A
321	If you are calling from a rotary-type telephone, please stay on the line and your call will be answered.	N/A
322	You can not reply to a system sent message.	N/A
323	Not used	N/A
324	Not used	N/A
325	Please select the days of the week.	N/A
326	To select individual week days, press three.	To select individual week days, say "Day" or press three.
327	Service is set for Monday through Friday.	N/A
328	Service is set for each day of the week.	N/A
329	Recording canceled.	N/A
330	The system was busy and could not deliver message notification at the specified time.	N/A
331	The system was unable to deliver message notification due to a programming error.	N/A
332	Extension ID...	N/A
333	...the operator.	N/A
334	...the operator...	N/A
335	Remote Messaging will call...	N/A
336	To change a cascade level, press one.	To change a cascade level, say "Level" or press one.
337	To select a message notification category, press four.	To select a message notification category, say "Category" or press four.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
338	Please enter the cascade level you wish to program.	Please enter the cascade level you wish to program. Say or enter one through nine using the keys on your telephone.
339	...with a pager number of...	N/A
340	To change the pager dial string, press three.	To change the pager dial string, say “Pager” or press three.
341	To call an internal extension, press one.	To call an internal extension, say “Internal” or press one.
342	To call an outside number, press two.	To call an outside number, say “Outside” or press two.
343	Not used	
344	Please enter the digits for your digital pager and wait for further instructions.	Please say or enter the digits for your digital pager and wait for further instructions.
345	The new pager number is...	N/A
346	Mailbox Number	N/A
347	New Message Count	N/A
348	Pause	N/A
349	You must program a telephone number first.	N/A
350	You have chosen not to have a pager number.	N/A
351	Cascade Level...	N/A
352	You did not enter a valid document number.	N/A
353	This document is currently unavailable.	N/A
354	... is not a valid document number.	N/A
355	You have already selected that document.	N/A
356	To cancel this message, press star.	To cancel this message, say “Cancel” or press star.
357	You have selected the maximum number of documents allowed.	N/A
358	To send your fax, press pound.	To send your fax, say “Send” or press pound.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
359	You have selected one document.	N/A
360	You haven't selected any documents yet.	N/A
361	You may select one more document during this call.	N/A
362	You may select up to...	N/A
363	... more documents during this call.	N/A
364	Selections cancelled.	N/A
365	The number that will appear on your fax cover sheet is...	N/A
366	You have chosen not to have your extension appear on your cover sheet.	N/A
367	If you would like to have your fax delivered in the future, press pound.	If you would like to have your fax delivered in the future, say "Delay" or press pound.
368	To re-enter the number, press three.	To re-enter the number, say "Re-enter" or press three.
369	If you wish to have your extension appear on your cover sheet, enter the extension followed by pound.	If you wish to have your extension appear on your cover sheet, say or enter the extension then say or press pound.
370	If you are calling from your fax machine, press one.	If you are calling from your fax machine, say "Yes" or press one.
371	Press the start button on your fax machine now.	N/A
372	All of our fax lines are currently busy.	N/A
373	Please try again later.	N/A
374	Your fax will be delivered to...	N/A
375	Your fax will be delivered shortly.	N/A
376	I am unable to communicate with your fax machine. Please make sure it is operating properly and try again.	N/A
377	Please enter the 10 digit telephone number of your fax machine, including area code.	Please say or enter the 10 digit fax number, including area code.
378	The number you enter may be up to twenty digits in length.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
379	Your fax is scheduled to be delivered at...	N/A
380	Please enter a document number.	Please say or enter the document number.
381	When you have finished importing documents, press star.	When you are done importing documents, say “Finished” or press star.
382	Document number...	N/A
383	...is currently in use.	N/A
384	...already exists.	N/A
385	To replace this document, press pound.	To replace this document, say “Replace” or press pound.
386	Document received.	N/A
387	Press pound to continue.	Say “Continue” or press pound to continue.
388	To import a fax document, press four.	To import a fax document, say “Import Fax” or press four.
389	If this is an international call, enter 011 followed by the country code and fax number. Then press pound.	If this is an international call, say or enter 011 followed by the country code and fax number. Then say or press pound.
390	I’m sorry. I’m not allowed to dial that number.	N/A
391	To receive your documents, please hang up and call from your fax machine.	N/A
392	The system does not have enough disk space to import your document.	N/A
393	The system is unable to import your document because it will exceed the Maximum Fax Library Size.	N/A
394	For recording options, press three.	For recording options, say “Options” or press three.
395	There are...	N/A
396	... calls ahead of you.	N/A
397	Your call should be answered within...	N/A
398	You have selected...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
399	...documents.	N/A
400	Hello, you have reached the Inter-Tel voice processing system.	N/A
401	Hello, you've reached the Inter-Tel automated call handling system.	N/A
402	To change your message search order, press two.	To change your message search order, say "Order" or press two.
403	Your current message search order is first in first out.	N/A
404	Your current message search order is last in, first out.	N/A
405	To search for messages first in first out, press one.	To search for messages first in first out, say "First In" or press one.
406	To search for messages last in first out, press two.	To search for messages last in first out, say "Last In" or press two.
407	To change the search order for new messages, press one.	To change the search order for new messages, say "New" or press one.
408	To change the search order for saved messages, press two.	To change the search order for saved messages, say "Saved" or press two.
409	You have received a new message	N/A
410	You have received a new voice mail	N/A
411	You have received a new e-mail	N/A
412	You have received a new fax	N/A
413	You have received…	N/A
414	Not used	N/A
415	Not used	N/A
416	Not used	N/A
417	Not used	N/A
418	Not used	N/A
419	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
420	Not used	N/A
421	Not used	N/A
422	Not used	N/A
423	Not used	N/A
424	Not used	N/A
425	Not used	N/A
426	Not used	N/A
427	Not used	N/A
428	Not used	N/A
429	Not used	N/A
430	Not used	N/A
431	Not used	N/A
432	Not used	N/A
433	Not used	N/A
434	Not used	N/A
435	Not used	N/A
436	Not used	N/A
437	Not used	N/A
438	Not used	N/A
439	Not used	N/A
440	Not used	N/A
441	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
442	Not used	N/A
443	Not used	N/A
444	Not used	N/A
445	Not used	N/A
446	Not used	N/A
447	Not used	N/A
448	Not used	N/A
449	Not used	N/A
450	Not used	N/A
451	Not used	N/A
452	Not used	N/A
453	Not used	N/A
454	Not used	N/A
455	Not used	N/A
456	Not used	N/A
457	Not used	N/A
458	Not used	N/A
459	Not used	N/A
460	Not used	N/A
461	Not used	N/A
462	Not used	N/A
463	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
464	Not used	N/A
465	Not used	N/A
466	Not used	N/A
467	Not used	N/A
468	Not used	N/A
469	Not used	N/A
470	Not used	N/A
471	Not used	N/A
472	Not used	N/A
473	Not used	N/A
474	Not used	N/A
475	Not used	N/A
476	Not used	N/A
477	Not used	N/A
478	Not used	N/A
479	Not used	N/A
480	Not used	N/A
481	Not used	N/A
482	Not used	N/A
483	Not used	N/A
484	Not used	N/A
485	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
486	Not used	N/A
487	Not used	N/A
488	Not used	N/A
489	Not used	N/A
490	Not used	N/A
491	Not used	N/A
492	Not used	N/A
493	Not used	N/A
494	Not used	N/A
495	Not used	N/A
496	Not used	N/A
497	Not used	N/A
498	Not used	N/A
499	Not used	N/A
500	If you know your party's extension number, enter it now.	If you know your party's extension, please say or enter it now.
501	To leave a message, press one.	To leave a message, say "Leave Message" or press one.
502	To try another extension, press two.	To try another extension, say "Extension" or press two.
503	Please hold while your call is being transferred to...	N/A
504	Not used	N/A
505	To return to the menu, press two.	To return to the menu, say "Menu" or press two.
506	Your fax is scheduled to be delivered on...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
507	The system already contains the maximum number of fax documents allowed.	N/A
508	The system does not have enough disk space to import any more documents.	N/A
509	The system is currently at or above the Maximum Fax Library Size.	N/A
510	Levels one through nine are currently disabled.	N/A
511	Your call will be answered in the order it was received.	N/A
512	There is one call ahead of you.	N/A
513	To change your transfer method, press five.	To change your transfer method, say “Transfer” or press five.
514	Your current transfer method is unannounced.	N/A
515	Your current transfer method is screened.	N/A
516	Your current transfer method is announce only.	N/A
517	To select unannounced transfers, press one.	To select unannounced transfers, say “Unannounced” or press one.
518	For screened transfers, press two.	For screened transfers, say “Screened” or press two.
519	For announce only, press three.	For announce only, say “Announce” or press three.
520	Who should I say is calling?	N/A
521	To replay the announcement, press one.	To replay the announcement, say “Replay” or press one.
522	To send this call to Voice Mail, press two.	To send this call to voice mail, say “Voice Mail” or press two.
523	To forward this call to another extension, press three.	To forward this call to another extension, say “Forward” or press three.
524	To accept this call, press pound.	To accept this call, say “Accept” or press pound.
525	To refuse this call, press star.	To refuse this call, say “Refuse” or press star.
526	You have a call from...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
527	To change the time and date, press five.	N/A
528	The current time is...	N/A
529	To accept the current time, press pound.	N/A
530	To enter a new time, use two digits for the hour and two digits for the minutes.	N/A
531	The current date is...	N/A
532	To accept the current date, press pound.	N/A
533	To enter a new date, use two digits for the month, two digits for the day, and two digits for the year.	N/A
534	Invalid date.	N/A
535	Please enter the extension number.	Please say or enter the extension number.
536	Not used	N/A
537	Not used	N/A
538	For system prompt replacement or reinstatement, press six.	For system prompt replacement or reinstatement, say “Replacement” or press six.
539	Please enter the number of the system prompt.	Please say or enter the number of the system prompt.
540	The system prompt has been replaced by the following custom prompt...	N/A
541	The original system prompt is...	N/A
542	To replace this system prompt with a custom prompt, press three.	To replace this system prompt with a custom prompt, say “Custom” or press three.
543	...is not a valid system prompt number.	N/A
544	To delete the custom prompt and reinstate the system prompt, press nine.	To delete the custom prompt and reinstate the system prompt, say “System” or press nine.
545	To replace this custom prompt with a new custom prompt, press three.	To replace this custom prompt with a new custom prompt, say “New Prompt” or press three.
546	You have no deleted messages.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
547	You have one deleted message.	N/A
548	...deleted messages.	N/A
549	To recover deleted messages, press two.	To recover deleted messages, say “Recover” or press two.
550	To recover this message, press seven.	To recover this message, say “Recover” or press seven.
551	Message recovered.	N/A
552	To purge this message, press nine.	To purge this message, say “Purge” or press nine.
553	Message purged.	N/A
554	To listen to deleted messages, press one.	To listen to deleted messages, say “Listen” or press one.
555	To recover all messages, press two.	To recover all messages, say “Recover” or press two.
556	To purge all messages, press three.	To purge all messages, say “Purge” or press three.
557	...messages recovered.	N/A
558	...messages purged.	N/A
559	...message recovered.	N/A
560	...message purged.	N/A
561	For message options, press five.	For message options, say “Options” or press five.
562	For more options, press nine.	For more options, say “More” or press nine.
563	To change the fax destination number, press one.	To change the fax destination number, say “Number” or press one.
564	Please enter the extension number of your fax destination, followed by the pound key.	Please say or enter the extension number of your fax. Then say or press pound.
565	Your fax destination is...	N/A
566	You have chosen not to have a fax destination.	N/A
567	Invalid extension.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
568	Fax destination saved.	N/A
569	Fax destination erased.	N/A
570	To cancel unheard sent voice mail messages, press one.	To cancel unheard sent voice mail messages, say “Unheard” or press one.
571	All sent messages have been heard.	N/A
572	Enter the destination mailbox.	Say or enter the destination mailbox.
573	This mailbox has one unheard message.	N/A
574	...unheard messages.	N/A
575	To append to the message, press two.	To append the message, say “Append” or press two.
576	To leave a Voice Mail message, press one.	To leave a Voice Mail message, say “Voice Mail” or press one.
577	To make a return call, press two.	To make a return call, say “Call Back” or press two.
578	Please hold while your call is being transferred to an outside number.	N/A
579	Enter the number of the remote mailbox.	Say or enter the number of the remote mail-box.
580	... followed by pound.	N/A
581	…has just listened to the original message.	N/A
582	This mailbox has...	N/A
583	Not Used	Not Used
584	Not Used	Not Used
585	Not Used	Not Used
586	Not Used	Not Used
587	To hear the recipients, press three.	To hear the recipients, say “Hear” or press three.
588	Not used	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
589	Not used	N/A
590	Not used	N/A
591	Not used	N/A
592	I'm sorry. I'm not allowed to dial that number.	N/A
593	Message received from an outside number with no caller ID information.	N/A
594	I'm sorry. I do not have valid Caller ID information.	N/A
595	…the network…	N/A
596	Your call is being handled by the Inter-Tel voice processing system.	N/A
597	You have no new e-mails.	N/A
598	... new e-mails	N/A
599	you have one new e-mail.	N/A
600	...saved e-mails.	N/A
601	You have one saved e-mail.	N/A
602	You have no new faxes.	N/A
603	... new faxes.	N/A
604	You have one new fax.	N/A
605	...saved faxes.	N/A
606	You have one saved fax.	N/A
607	The system has not been properly configured.	N/A
608	To listen to voice mails, press one.	To listen to voice mails, say "Voice Mail" or press one.
609	To listen to e-mails, press three.	To listen to e-mails, say "E-mail" or press three.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
610	To listen to faxes, press six.	To listen to Fax messages, say “Facsimile” or press six.
611	You have no new messages.	N/A
612	with the subject...	N/A
613	I’m sorry, you cannot delete this e-mail.	N/A
614	To reply to all recipients, press one.	To reply to all recipients, say “Everyone” or press one.
615	To reply to just the sender, press two.	To reply to just the sender, say “Sender” or press two.
616	I’m sorry, this message was received from an unknown source.	N/A
617	Please enter the digits for the fax destination and wait for further instructions.	N/A
618	The system could not access your e-mail account with the known password.	N/A
619	...totalling	N/A
620	...pages	N/A
621	I’m sorry, you cannot delete this fax.	N/A
622	For voice mails, press one.	For voice mails, say “Voice Mail” or press one.
623	For e-mails, press two.	For e-mails, say “E-mail” or press two.
624	For faxes, press three.	For faxes, say “Facsimile” or press three.
625	Not Used	Not Used
626	Not Used	Not Used
627	Not Used	Not Used
628	Not Used	Not Used
629	Not Used	Not Used
630	voice mail	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
631	e-mail	N/A
632	Fax	N/A
633	Not Used	Not Used
634	Not Used	Not Used
635	Not Used	Not Used
636	Not Used	Not Used
637	Not Used	Not Used
638	Not Used	Not Used
639	Not used	Not Used
640	Not Used	Not Used
641	Not Used	Not Used
642	Not Used	Not Used
643	Not Used	Not Used
644	Not Used	Not Used
645	...flagged...	N/A
646	...saved....	N/A
647	...answered...	N/A
648	...recent...	N/A
649	...deleted...	N/A
650	…one page…	N/A
651	...voice mails...	N/A
652	...e-mails...	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
653	...faxes...	N/A
654	This message is marked...	N/A
655	...flagged...	N/A
656	...saved...	N/A
657	...answered...	N/A
658	...recent...	N/A
659	...deleted...	N/A
660	...with attachment...	N/A
661	For your voice mail envelope, press one.	For your voice mail envelope, say “Voice Mail” or press one.
662	For your e-mail envelope, press two.	For your e-mail envelope, say “E-mail” or press two.
663	For your fax envelope, press three.	For your fax envelope, say “Facsimile” or press three.
664	For message filters, press six.	For message filters, say “Filters” or press six.
665	For the message subject, press three.	For the message subject, say “Subject” or press three.
666	...message subject...	N/A
667	...message filters...	N/A
668	For the number of pages, press three.	For the number of pages, say “Pages” or press three.
669	You cannot turn all fax envelope options off.	N/A
670	...number of pages...	N/A
671	You have no new voice mails.	N/A
672	Fax scheduled for delivery.	N/A
673	...new voice mails.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
674	You have one priority voice mail.	N/A
675	You have one new voice mail	N/A
676	...saved voice mails…	N/A
677	You have one saved voice mail.	N/A
678	To listen to messages, press one.	To listen to messages, say “Messages” or press one.
679	The system is momentarily unable to process your request.	The system is momentarily unable to process your request.
680	To wait for resources to become available, press one.	To wait for resources to become available, say “Wait” or press one.
681	To cancel the request and return to a previous menu, press star.	To cancel the request and return to a previous menu, say “Cancel” or press star.
682	Not Used	Not Used
683	You have one unheard voice mail.	N/A
684	You have one heard voice mail.	N/A
685	… unheard voice mail…	N/A
686	… heard voice mail…	N/A
687	You have no unheard voice mails.	N/A
688	Not Used	Not Used
689	Not Used	Not Used
690	Not Used	Not Used
691	Not Used	Not Used
692	Not Used	Not Used
693	You have one priority e-mail	N/A
694	Not Used	Not Used
695	Not Used	Not Used

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
696	Not Used	Not Used
697	Not Used	Not Used
698	Not Used	Not Used
699	Not Used	Not Used
700	N/A	Please spell the first few letters of where you would like to search in the directory.
701	...hours...	N/A
702	...hour...	N/A
703	<10 second pause>	N/A
704	<five second pause>	N/A
705*	<one second pause>	N/A
706	Fax cancelled	N/A
707	telephone number…	N/A
708	Not Used	Not Used
709	Your results match more than…	Your results match more than…
710	…entries.	…entries.
711	If you would like to browse these results, press one. To filter your search, press two.	If you would like to browse these results, please say “Yes” or press one. To filter your search, say “No” or press two.
712	If the result is the first name, press one. Otherwise, please tell me the first name by pressing the keys on your telephone.	If that name is the first name, say “Yes” or press one. Otherwise, please tell me the first name by saying, spelling, or pressing the keys on your telephone.
713	If the result is the last name, press one. Otherwise, please tell me the last name by pressing the keys on your telephone.	If that name is the last name, say “Yes” or press one. Otherwise, please tell me the last name by saying, spelling, or pressing the keys on your telephone.
715	Not Used	Not Used
716	Not Used	Not Used

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
717	…one saved voice mail	N/A
718	…one saved e-mail	N/A
719	…one saved fax	N/A
720	…one saved message	N/A
721	… unheard voice mails	N/A
722	… heard voice mails	N/A
723	Not Used	Not Used
724	Not Used	Not Used
725	Not Used	Not Used
726	Not Used	Not Used
727	…one heard voice mail	N/A
728	Not Used	Not Used
729	Not Used	Not Used
730	Not Used	Not Used
731	I'm sorry, I didn't understand your response.	N/A
732	The system prompt you have selected has two formats.	N/A
733	To select the standard format, press one.	To select the standard format, say "Standard" or press one.
734	To select the speech-recognition format, press two.	To select the speech-recognition format, say "Speech Recognition" or press two.
735	To replace the standard format, press one.	To replace the standard format, say "Standard" or press one.
736	To replace the speech-recognition format, press one.	To replace the speech-recognition format, say "Speech Recognition" or press one.
737	Not Used	Not Used

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
738	Not Used	Not Used
739	Speech recognition has been disabled for this call.	N/A
740	Not Used	Not Used
741	... messages…	N/A
742	...seen...	N/A
743	Not Used	Not Used
744	Not Used	Not Used
745	You have no saved voice mails.	N/A
746	Not Used	Not Used
747	You have no saved e-mails.	N/A
748	Not Used	Not Used
749	You have no saved faxes.	N/A
750	Not Used	Not Used
751	voice mail received...	N/A
752	E-mail received...	N/A
753	Fax received...	N/A
754	Priority voice mail received...	N/A
755	Priority e-mail received...	N/A
756	Not Used	Not Used
757	and seen	N/A
758	and recent	N/A
759	and answered	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
760	and deleted	N/A
761	Not Used	Not Used
762*	...Million...	N/A
763*	...Billion...	N/A
764*	...Trillion...	N/A
765*	...Minus...	N/A
766*	...Dollar...	N/A
767*	...Dollars...	N/A
768*	...Cent...	N/A
769*	...Cents...	N/A
770	<Pause>	N/A
771*	O'clock	N/A
772*	...Point...	N/A
773	I was unable to connect to your voice mail server.	N/A
774	I was unable to connect to your e-mail server.	N/A
775	I was unable to connect to your fax server.	N/A
776	If you have changed your password, press one.	If you have changed your password, say "Password" or press one.
777	To continue without these messages, press #.	To continue without these messages, say "Continue" or press #.
778*	dash	N/A
779*	ampersand	N/A
780*	at	N/A
781*	left parenthesis	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
782*	right parenthesis	N/A
783*	underscore	N/A
784*	space	N/A
785*	Tilde	N/A
786*	a	N/A
787*	b	N/A
788*	c	N/A
789*	apostrophe	N/A
790*	lower A	N/A
791*	lower B	N/A
792*	lower C	N/A
793*	d	N/A
794*	e	N/A
795*	F	N/A
796*	exclamation point	N/A
797*	lower D	N/A
798*	lower E	N/A
799*	lower F	N/A
800*	g	N/A
801*	h	N/A
802*	I	N/A
803*	star	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
804*	lower G	N/A
805*	lower H	N/A
806*	lower I	N/A
807*	j	N/A
808*	k	N/A
809*	l	N/A
810*	pound	N/A
811*	lower J	N/A
812*	lower K	N/A
813*	lower L	N/A
814*	m	N/A
815*	n	N/A
816*	o	N/A
818*	lower M	N/A
819*	lower N	N/A
820*	lower O	N/A
821*	p	N/A
822*	q	N/A
823*	r	N/A
824*	s	N/A
825*	lower P	N/A
826*	lower Q	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
827*	lower R	N/A
828*	lower S	N/A
829*	T	N/A
830*	u	N/A
831*	v	N/A
832*	question mark	N/A
833*	lower T	N/A
834*	lower U	N/A
835*	lower V	N/A
836*	w	N/A
837*	x	N/A
838*	Y	N/A
839*	z	N/A
840*	lower W	N/A
841*	lower X	N/A
842*	lower Y	N/A
843*	lower Z	N/A
844*	colon	N/A
845*	period	N/A
846*	comma	N/A
847*	forward slash	N/A
848*	backward slash	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
849*	plus sign	N/A
850	Please hold while I check your e-mail.	N/A
851	...one unreadable message	N/A
852	...unreadable messages	N/A
853	You have no unreadable messages	N/A
854	To manage unreadable messages, press six	N/A
855	unreadable message...	N/A
856	If you are finish, please press pound. Otherwise, press the next key to continue spelling.	N/A
857	Your quota grace limit has been reached.	N/A
858	please hold while I check your messages.	N/A
859	The message could not be played.	N/A
860	Not Used	Not Used
861	I'm sorry there are no network mailboxes available for Node...	N/A
862	I'm sorry. This message cannot be forwarded.	N/A
863	I could not connect to any of your remote servers. You will be redirected to the local voice mail view.	N/A
864	Not Used	Not Used
865	Not Used	Not Used
866	Not Used	Not Used
867	Not Used	Not Used
868	Not Used	Not Used
869	Not Used	Not Used

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
870	Not Used	Not Used
871	Not Used	Not Used
872	Not Used	Not Used
873	Not Used	Not Used
874	Not Used	Not Used
875	Not Used	Not Used
876	To record a standard greeting press one.	To record a standard greeting, say “Standard” or press one.
877	To copy the standard greeting to the speech-recognition greeting, press two.	To copy the standard greeting to the speech-recognition greeting, say “Copy” or press two.
878	To record a speech-recognition greeting press three.	To record a speech-recognition greeting say “Speech Recognition” or press three.
879	If you would like to copy this recording to the speech-recognition greeting, press one.	If you would like to use this recording as the speech-recognition greeting, say “Copy” or press one.
880	To record a new speech-recognition greeting, press three.	To record a new speech-recognition greeting, say “New” or press three.
881	ñ (pronunciation: en-yay)	N/A
882	I'm sorry. This system prompt is not available for replacement.	N/A
883	The following message could not be delivered to...	N/A
884	To disable Speech Recognition mailbox commands for this call, press eight.	To disable Speech Recognition mailbox commands for this call, say 'Disable' or press eight.
885	Speech Recognition disabled.	N/A
886	I could not create a secure connection to your remote server. You will be redirected to the local voice-mail view.	N/A
887	Please contact your system administrator.	N/A
888	E-mail Reader was unable to retrieve your faxes from your e-mail server due to a login failure.	N/A

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
889	E-mail Reader was unable to retrieve your e-mails from your e-mail server due to a login failure.	N/A
890	Please enter your e-mail account password. This is case sensitive. Using the keypad, you can scroll through symbols, numbers, and letters, both lower and upper case.	Please spell or enter your e-mail account password. This is case sensitive. You can speak symbols, numbers, and letters. For upper case letters, say 'upper' followed by the letter.
891	Using the keys on your telephone, please spell the last name of the person. Then press pound. For the letter Q, press seven. For the letter Z, press nine.	Please say the last name of the person you are trying to reach. Otherwise, using the keys on your telephone, please spell the last name of the person, then press pound. For the letter Q, press seven. For the letter Z, press nine.
892	You have no voice-mails	N/A
893	You have no e-mails	N/A
894	You have no faxes	N/A
895	...Network extension...	N/A
896	To enable Speech Recognition mailbox commands for this call, press eight.	To enable Speech Recognition mailbox commands for this call, say “Enable” or press eight.
897	There was an error accessing your messages; you will be returned to the main-menu	N/A
898	...Network Mailbox...	N/A
899	N/A	I think you said “delete.” If this is correct, please press 1; if this is not correct, please press 2.
900	Speech Recognition enabled.	N/A
901	No days selected.	No days selected.
902	On	On
903	Off	Off
904	N/A	N/A
905	N/A	N/A
906	N/A	N/A
907	Message dated…	Message dated…
908	E-mail Reader was unable to retrieve your faxes and e-mails from your e-mail server due to a login failure.	E-mail Reader was unable to retrieve your faxes and e-mails from your e-mail server due to a login failure.

Table 42. *Voice Prompts: Non-ASR and ASR (Continued)*

PROMPT ID	CONTENT (NON-ASR)	CONTENT (ASR)
909	To copy this message to additional mailboxes, press four.	To copy this message to additional mailboxes, say “Copy” or press four.

Default Feature Codes

Trunk Access Codes

FEATURE NAME	CODE (US/ EUROPE)
Automatic Route Selection (ARS)	92000*
Trunk Group Access 1-208	92001–92208*
Emergency Calls	911/999
Outgoing Call	8

*These feature codes may differ depending on the software version.

Station Feature Codes

FEATURE NAME	CODE (US/ EUROPE)
Account Code – All Calls Following	391
Account Code – Optional	390
ACD Agent Login ACD Agent Logout ACD Agent Login/Logout Toggle	326 327 328
ACD Agent Wrap-Up Terminate	329
Agent Help	375
Agent Help Reject	376
Answer (Ringing Call)	351
Audio Diagnostics	320
Automatic CO Access On/Off	360
Automatic IC Access On/Off	361
Automatic Trunk Answer	350
Background Music On/Off	313
Barge-In	386
Call Forward All Calls	355
Call Forward If Busy	357
Call Forward If No Answer	356
Call Forward If No Answer/Busy	358
Change Language	301
CO Hookflash	330
Conference	5
Data	340
Default Station	394
Directory	307
Display Outside Party Name On/Off	379
Display Time/Date (IP Mode) Display IP Address (SIP Mode)	300
Do-Not-Disturb Do-Not-Disturb Cancel Do-Not-Disturb On/Off	370 371 372
Do-Not-Disturb Override	373
Enhanced Speakerphone Enable	310
Feature Key Default	395
Group Listen	312
Handsfree On/Off	319
Headset Enable Headset Disable Headset On/Off	315 316 317
Hold – Individual	336
Hold – System	335
Hunt Group Remove Hunt Group Replace Hunt Group Remove/Replace	322 323 324
LCD Contrast *(Model 8620, 8622, 8660, or 8662)*	303
Message	365
Message – Cancel	366
Message – Cancel Current	368
Message – Silent	367
Mute On/Off	314
Page	7
Page On/Off	325
Program Bit Rate	393
Program Keys	397
Program Station Password	392
Queue Request	6
Record-A-Call	385
Redial	380
Redirect Call	331

FEATURE NAME	CODE (US/ EUROPE)
Reminder Message Reminder Message Cancel	305 306
Remote Programming	359
Reverse Transfer (Call Pick-Up)	4
Review Keys	396
Ring Intercom Always On/Off	377
Ring Tone Selection	398
Routing Off	304
Station Monitor	321
Station Speed Dial Station Speed Dial Programming	382 383
Steal	387
Switch Keymap	399
System Forward Enable System Forward Disable System Forward On/Off	352 353 354
System Speed Dial	381
Transfer to Hold	346
Transfer to Ring	345

Administrator Feature Codes

FEATURE NAME	CODE (US/ EUROPE)
Automatic Diagnostics Delivery On/Off	9823
Clear Network Alarm	9851
Clear System Alarm	9850
Diagnostics On/Off	9900/9100
Enable Network Day	9862
Enable Network Night	9861
Modem Disable	9867
Modem Enable	9866
Modem Reset	9869
Night Ring On/Off	9860
Periodic Diagnostics On/Off	9825
Program System Speed Dial	9801
Set Network Date/Time	9810
Set Time/Date	9800
Synchronize Network Time	9811

Diagnostics Feature Codes

The Diagnostics Mode feature code (9900/9100) must be entered before the following feature codes can be used.

FEATURE NAME	CODE (US/EU)
Compress On/Off	9982/9182
Compression Statistics	9981/9181
Diagnostic - ASAI Snoop Off	9926/9126
Diagnostic - ASAI Snoop On	9927/9127
Diagnostic - Dump Extension	9922/9122
Diagnostic - Dump Node Information	9936/9136
Diagnostic - Dump System Diagnostics	9933/9133
Diagnostic - Heap Dump	9943/9143
Diagnostic - Heap Statistics	9947/9147
Diagnostic - ISDN View	9948/9148
Diagnostic - Major Reset	9962/9162
Diagnostic - Mark As Leaks	9945/9145
Diagnostic - Mark As Quiescent	9946/9146
Diagnostic - Minor Reset	9964/9164
Diagnostic - Network Freeze Zone System Histories	9939/9139
Diagnostic - Network Unfreeze Zone System Histories	9989/9189
Diagnostic - Network Group	9963/9163
Diagnostic - Print Auxdata	9972/9172
Diagnostic - Print Message Log	9975/9175
Diagnostic - Print Network Log	9976/9176
Diagnostic - Query Node Traffic	9978/9178
Diagnostic - Show Version	9928/9128
Diagnostic - SIP View	9987/9187
Diagnostic - Spare 1-3	9910-9912/ 9110-9112
Diagnostic - System History	9974/9174
Diagnostic - View Displays	9983/9183
Program Database	9932/9132
Seize Device	9973/9173
System History — Freeze	9993/9193
System History — Unfreeze	9998/9198

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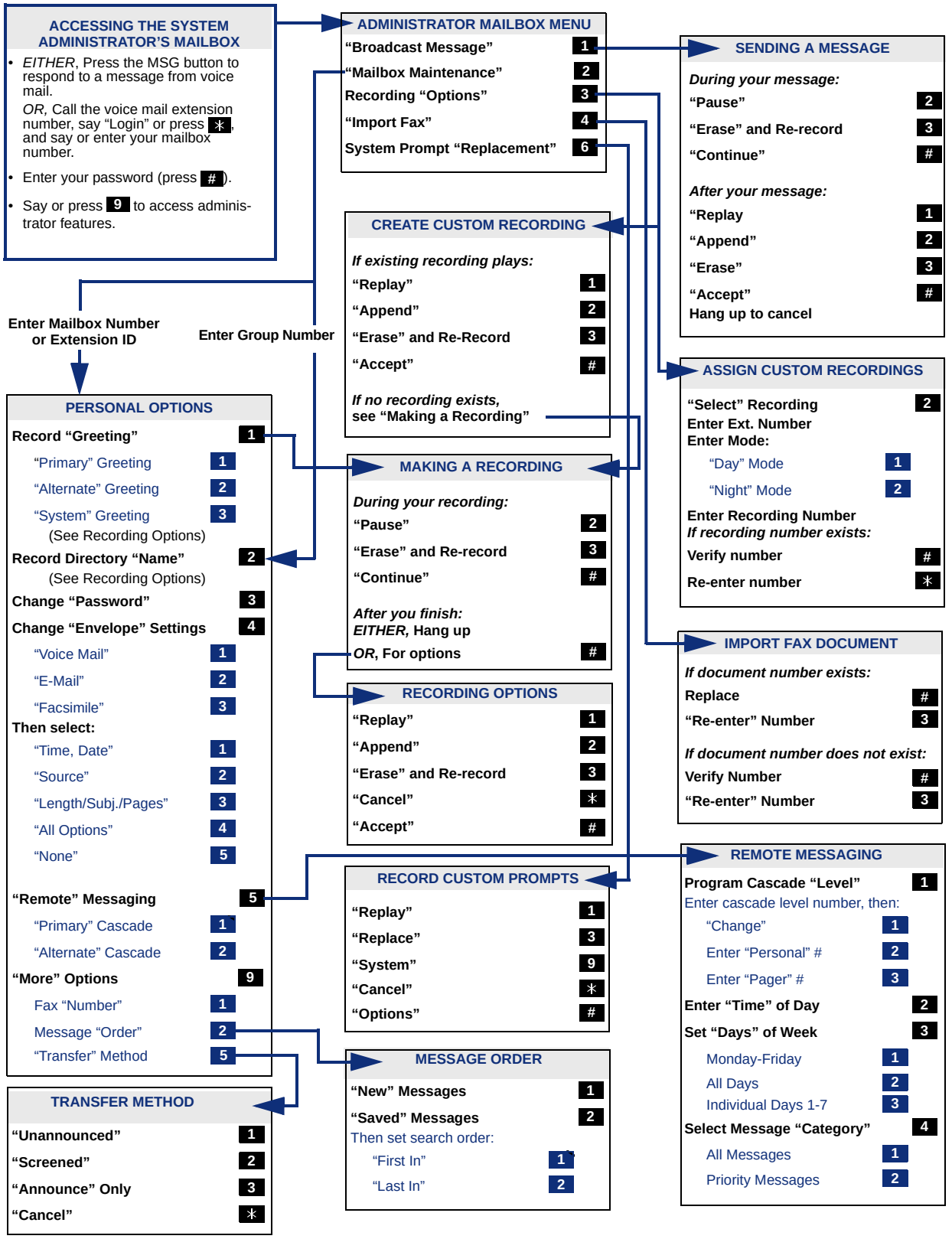
Voice Mail Flowchart

NOTE: At any menu level, you can say "Cancel" or press * to cancel or return to the previous menu or say "Accept" or press # to accept.



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